COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:
The Joint Petition of Kentucky-American
Water Company, Thames Water Aqua
Holdings GmbH, RWE Aktiengesellschaft,
Thames Water Aqua US Holdings, Inc., and
American Water Works Company, Inc. for
Approval of a Change in Control of
Kentucky-American Water Company

Docket No. 2006-00197

Direct Testimony of Scott J. Rubin

*** PUBLIC VERSION ***

on behalf of

The Office of Attorney General

August 14, 2006

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1. Introduction 1 2 Q. Please state your name and business address. My name is Scott J. Rubin. My business address is 3 Lost Creek Drive, Selinsgrove, PA. 3 A. By whom are you employed and in what capacity? 4 Q. I am an independent consultant and an attorney. My practice is limited to matters 5 A. affecting the public utility industry. 6 What is the purpose of your testimony in this case? 7 Q. I have been asked by the Office of Attorney General (AG) to review, and make 8 A. recommendations concerning, the Joint Application filed by Kentucky-American Water 9 Company (KAWC), American Water Works Company, Inc. (AWW), Thames Water 10 Aqua US Holdings, Inc. (TWAUSHI), Thames Water Aqua Holdings GmbH (Thames), 11 and RWE AG (RWE). All of the joint applicants, except RWE, are either directly or 12 indirectly wholly owned subsidiaries of RWE. The application seeks approval for a 13 proposed merger between TWAUSHI and AWW (with AWW as the surviving 14 company), to be followed by an Initial Public Offering (IPO) of the common stock of 15 AWW. At the conclusion of the IPO, AWW would be an independent, publicly traded 16 17 company. What are your qualifications to provide this testimony in this case? 18 Q.

I have testified as an expert witness before utility commissions or courts in the District of
Columbia and in the states of Arizona, Delaware, Kentucky, Illinois, Maine, Maryland,
New Jersey, New York, Ohio, Pennsylvania, and West Virginia. I also have testified as
an expert witness before two committees of the U.S. Ho use of Representatives and one

committee of the Pennsylvania House of Representatives. I also have served as a consultant to the staffs of two state utility commissions, several national utility trade associations, and state and local governments throughout the country. Prior to establishing my own consulting and law practice, I was employed by the Pennsylvania Office of Consumer Advocate from 1983 through January 1994 in increasingly responsible positions. From 1990 until I left that Office, I was one of two senior attorneys in that Office. Among my other responsibilities in that position, I had a major role in setting their policy positions on water and electric matters. In addition, I was responsible for supervising the technical staff of that Office. I also testified as an expert witness for that Office on rate design and cost of service issues.

In addition, from 1990 until 1994, I chaired the Water Committee of the National Association of State Utility Consumer Advocates (NASUCA). In that position, I served as the liaison between NASUCA members and various industry and government associations, including the National Association of Water Companies, the American Water Works Association, and the U.S. Environmental Protection Agency. I was frequently called upon by those organizations to provide the consumer perspective on various water-industry issues, including customer service.

Throughout my career, I developed substantial expertise in matters relating to the economic regulation of public utilities. I have published articles, contributed to books, written speeches, and delivered numerous presentations, on both the national and state level, relating to regulatory issues. I have attended numerous continuing education courses involving the utility industry. I also periodically participate as a faculty member in utility-related educational programs for the Institute for Public Utilities at Michigan

1		State University, the American Water Works Association (AWWA), and the
2		Pennsylvania Bar Institute. Appendix A to this testimony is my curriculum vitae.
3	Q.	Do you have any experience that is particularly relevant to the issues in this case?
4	A.	Yes, I do. Over the years, I have been involved, either as an attorney or an expert
5		witness, in numerous utility merger or reorganization proceedings, including the
6		following:
7		Allegheny Energy – Duquesne Light
8		• Exelon - PSEG
9		• FirstEnergy – GPU
10		 Long Island Lighting – Keyspan – Long Island Power Authority
11		• MCI – Sprint
12		• PSC – Consumers Water
13		RWE – Thames – American Water Works
14		• SBC – AT&T
15		• Verizon – MCI
16		• Duke – Cinergy
17		Sprint-Nextel – Embarq
18 19		Alltel – Valor – Windstream
20		Of particular note, I was an expert witness and consultant for the public advocates
21		in four states (Kentucky, New Jersey, Pennsylvania, and West Virginia) when RWE
22		acquired AWW in 2003.

1	Q.	Are you also working for a group of public advocates concerning the transaction
2		that is proposed in this case?
3	A.	Yes, I am. I have been retained by public advocates in five states (Illinois, Kentucky,
4		New Jersey, Pennsylvania, and West Virginia) to assist in regulatory commission
5		proceedings concerning the proposed IPO of AWW.
6	Q.	Are you familiar with KAWC?
7	A.	Yes, I am. I have testified in several cases involving KAWC during the past 12 years.
8		These have included cases involving KAWC's source of supply, as well as rate cases. In
9		addition, I have provided other consultation to the AG concerning KAWC that did not
10		involve formal litigation, such as negotiations concerning a drought response tariff for
11		KAWC.
12		2. Overview
13	Q.	Please provide an overview of the issues that you will be addressing.
14	A.	I will be discussing the proposed transaction and its potential impacts on the financial,
15		managerial, and technical capabilities of AWW and KAWC to provide safe and reliable
16		utility service. I also will propose various conditions that are necessary in order for the
17		proposed transaction to be in the public interest.
18	Q.	Is this testimony based on a complete review of all relevant information?
19	A.	No, as I am preparing this testimony, there is an outstanding discovery dispute
20		concerning the redaction of documents that allegedly contain information subject to
21		attorney-client privilege. I understand that the Commission may conduct an in camera
22		review of this information. If, as a result of that review, additional information is

1 provided, then it may be necessary to supplement my testimony and I would reserve the 2 right to do so. 3 Q. Does your testimony represent the entire position of the AG in this case? No, it does not. The AG also is sponsoring the testimony of Dr. J. Randall Woolridge 4 A. 5 who may have other recommendations. Further, I am advised that earlier in this 6 proceeding, the Commission ordered the Joint Petitioners and intervenors to submit briefs 7 regarding the Kentucky law that is applicable to the Commission's consideration of this 8 application. My understanding is that the Commission has yet to issue an order 9 addressing this issue. I have been instructed by counsel to provide my assessment of the 10 managerial, financial, and technical ability of both the current and post-divestiture AWW, 11 as well as whether the transaction is for a proper purpose and in the public interest. 12 Ultimately, it is for the AG to argue its position on the issues it wants to advance. I have been advised that I should make it clear that my testimony does not represent a waiver or 13 14 concession by the AG as to the applicable decisional criteria that should be applied in this 15 case. Also, I should add that my testimony may not address all of the AG's concerns, 16 consistent with the advice I received that the AG may submit additional 17 recommendations through other witnesses and its brief. 18 3. Summary 19 Q. Please summarize your major findings and conclusions.

20 A. I summarize my major findings and conclusions as follows:

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 RWE has decided to sell AWW, after just three years, because of AWW's lackluster operating performance, inefficient operations

1 (including high levels of lost water), high capital requirements, and 2 ineffective management. 3 AWW faces serious challenges, and projects it will need to greatly 4 increase its level of capital expenditures during the next few years in 5 order to stem the level of water losses and come into regulatory 6 compliance. KAWC faces some of these same challenges. 7 AWW has allowed its pension plan to become seriously under-funded 8 during RWE's ownership. At year-end 2004 (the latest figures 9 available), AWW's unfunded pension liability stood at \$277 million – 10 nearly tripling the unfunded liability that existed when AWW was 11 acquired by RWE. Restoring the pension plan to fiscal health will 12 serve as a further drain on AWW's cash resources. 13 The proposed IPO will not raise any capital for AWW. The IPO and 14 divestiture from RWE will do nothing to help AWW and KAWC meet 15 these challenges. In fact, the IPO process itself will cost AWW 16 millions of dollars, raise AWW's cost of capital, and distract 17 management from addressing AWW's real problems. As such, the 18 proposed IPO will have a negative impact on AWW, KAWC, and 19 KAWC's customers. 20 I am concerned about the \$1.75 billion in preferred stock that is owned 21 by TWAUSHI and that AWW apparently will need to redeem. The 22 transaction underlying the issuance of that stock is very complex and 23 all relevant documents have not been received yet. At this point, I am 24 unclear how the proposed merger of TWAUSHI and AWW affects this 25 obligation. From a summary of the transactions prepared by Goldman 26 Sachs, however, it appears that the transactions included guarantees by 27 KAWC and AWW's other operating subsidiaries – guarantees that 28 apparently were given without the approval of this Commission or any 29 of the other state regulatory commissions that require approval of such 30 guarantees. These issues require further investigation. 31 I conclude that given the costs and detriments of the proposed IPO to 32 AWW, that AWW should receive at least 20% of the proceeds of the 33 IPO. RWE should not be permitted to just walk away from its 34 commitments, receive billions of dollars, and leave AWW holding the 35 bag with increased costs, reduced access to capital, increasing capital 36 requirements, and other serious challenges. 37 I also conclude that the Commission should condition its approval of 38 the proposed transaction in several ways that are designed to put 39 KAWC back on the right track, and to ensure that KAWC has the 40 resources necessary to address its source of supply concerns.

4. Background

2 Q .	When di	RWE and	Thames acquire	AWW?
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- 3 A. On September 17, 2001, RWE and Thames announced that they had reached an
- 4 agreement with AWW to purchase all of AWW's common stock. The total transaction
- 5 had a value of approximately \$7.6 billion (the stock purchase was valued at
- 6 approximately \$4.6 billion, with an additional \$3.0 billion of assumed debt). It took more
- 7 than a year for the regulatory approval process to be completed, so the transaction did not
- 8 close until January 10, 2003.

9 Q. Did the Kentucky Public Service Commission review and approve that transaction?

- 10 A. Yes, on December 20, 2002, this Commission issued an order approving the transaction,
- with conditions (Case No. 2002-00317). The Commission adopted 61 conditions. For
- ease of reference, I have reproduced the list of conditions from that order in Schedule
- 13 SJR-1.

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14 Q. What is RWE now proposing?

- 15 A. RWE is now proposing to sell its interest in AWW. In essence, RWE is not happy with
- the deal it made less than five years ago and it wants to sell AWW. RWE attempted to
- find a single buyer (or group of buyers) for AWW, but was unable to find one at a price it
- found desirable. As a result, RWE is proposing to sell the common stock of AWW to the
- 19 public through an IPO.

5. Reasons RWE is Trying to Sell AWW

2 Q. Why is RWE trying to sell AWW?

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According to the minutes of meetings of RWE's board of directors (known as the Supervisory Board), there appear to be three major reasons for RWE's decisions. First, RWE is clearly dissatisfied with AWW's operations and performance. One major area of concern is the performance of AWW's unregulated operations, about which RWE's board states: "growth in non-regulated business was well below expectations due to the weak distribution [sales] team." Minutes of RWE Supervisory Board meeting of September 16, 2005 (Public Version) (attached as Schedule SJR-2), page 3. At a subsequent meeting, RWE's board was told that at AWW "rises in efficiency were not implemented as planned." Minutes of RWE Supervisory Board meeting of November 4, 2005 (Public Version) (attached as Schedule SJR-3), page 4.

Second, RWE is disheartened by the level of on-going capital investment that is required to run AWW because, among other reasons, "tougher environmental standards ... would require ever higher capital spending." Schedule SJR-2, page 4. The public version of the presentation at that meeting referred to AWW's infrastructure as being "outdated." Schedule SJR-4. Later, RWE's board was told that the "water business had a disproportionately high need for capital without offering correspondingly high return." Schedule SJR-3, page 2.

Third, RWE's board also expressed serious concern with the level of water that is being lost within the AWW system – water that is costly to purchase or treat but that never results in revenue because it does not reach the customer. Thus, the board minutes

1		state: "Mr. Roels [RWE's CEO] then explained in depth the risks that arise for Thames
2		Water and American Water from distribution losses. In Thames Water's case, for
3		example, the distribution losses currently amounted to some 30% of production
4		The corresponding value at American Water was about 19%." Schedule SJR-2, page 4.
5		At the board's November meeting, this was further explained as follows:
6 7 8 9 10 11 12 13 14 15 16 17 18 19 20		In connection with the discussions about the most recent planning by American Water's management, it had become clear that leakage problems in the US would tend to worsen in future. For instance, the share of water production in New Jersey that is lost by leakage had risen from 15% to currently 18%. The comparable value for Pennsylvania stood at 30%. While replacing Thames Water's entire pipe system would take 125 years at the current renewal rate, the corresponding figure for American Water was over 200 years. The reason for this extraordinarily high value was that American Water, across a period of several years, had not met regulatory stipulations in various US states. In part, this was due to insufficient investment by American Water in the previous 10 years prior to RWE acquiring its holding. In view of this renewal backlog, there ought to be no investment restraint in dealing with these defects. The elimination of major deviations from regulators' stipulations is likely to last into the year 2008. Schedule SJR-3, page 8.
22	Q.	Are there other indications that AWW's management and unregulated operations
23		are adversely affecting AWW?
24	A.	Yes, in a presentation to AWW dated May 2, 2006, AWW's financial advisor, Goldman
25		Sachs, notes the following concern with AWW's credit: "Non-regulated water and
26		wastewater operations introduce more business risk than the regulatory operations."
27		Selected pages from the presentation are attached as Schedule SJR-5; this quote appears
28		on page 13 of the presentation (page 2 of Schedule SJR-5).

of AWW's projected capital expenditures?

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1	Q.	Are there other indications that AWW's capital spending needs are adversely
2		affecting AWW?
3	A.	Yes, the same presentation from Goldman Sachs also lists as a concern the "high level of
4		capital expenditure spending necessary to upgrade and maintain water systems in
5		compliance with regulatory standards." Schedule SJR-5, page 2.
6		Further, a presentation dated March 2, 2006, apparently prepared by AWW's
7		Chief Financial Officer, Ellen Wolf, notes that AWW's capital expenditures for
8		maintenance are expected to grow at a rate of 15% per year from 2011 through 2020. The
9		relevant page from this presentation is attached as Schedule SJR-6. This is a very high
10		growth rate, which would indicate that AWW's plant is deteriorating significantly and/or
11		that AWW has not been investing adequately in maintaining its facilities. This projected
12		spending level confirms the concerns of RWE's board that AWW has not been properly
13		maintaining its facilities.
14		Moreover, this projected increase in capital expenditures apparently is coming on
15		top of expenditures that already are at a high level. In a December 12, 2005, presentation
16		Goldman Sachs amplified this concern, noting that "capital expenditure has averaged
17		close to \$500mm [million] over the last three years, 3x higher than that of its closest
18		competitor." The relevant page from this presentation is attached as Schedule SJR-7.
19	Q.	Are there allegedly confidential documents that shed further light on the magnitude
20		of AWW's projected capital expenditures?

Yes, there are, and those documents also show a troubling pattern of AWW continually

revising its projected capital expenditures. Specifically, in a December 5, 2005,

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Q. What do these continual changes in projected capital spending indicate to you?

It seems that AWW does not have a solid understanding of the level and type of capital spending that it will require over the next five years. This is troubling because most water utility investments take several years to plan, finance, and construct. Historically AWW's operating companies consistently prepared five-year capital plans, so each operating utility and AWW as a whole would have a good idea of the capital spending needs over a reasonable planning horizon. For the capital expenditure number to fluctuate so frequently during a six-month time period certainly makes me wonder whether the same level of diligent capital planning is being conducted now at AWW and its operating companies.

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2010. Further, as I discussed above, AWW projects further large increases (15% per 1 2 year) in capital spending after 2010. 3 Q. What do these increases indicate? Increases of this magnitude are fully consistent with indications in the minutes of RWE's 4 A. 5 board meetings that AWW's infrastructure needs have been neglected, resulting in lack 6 of compliance and unacceptably high levels of unaccounted for water... 7 Q. Other than the three problems highlighted by RWE's board, does AWW face other 8 significant challenges? 9 A. Yes, while there may be others, I will highlight one additional concern. According to the 10 May 2, 2006, Goldman Sachs presentation, AWW's pension and Other Post-Employment 11 Benefit (OPEB) plans are "under-funded ... with a low pension funding ratio." Schedule SJR-5, page 2. In December 2005, Goldman Sachs quantified the level of under-funding, 12 13 stating that the pension fund was under-funded by \$277 million and OPEBs were under-14 funded by \$177 million, as of year-end 2004. Schedule SJR-7. That document also 15 shows that the pension funding ratio (that is, the percentage of the pension obligation that 16 was funded) stood at only 60% compared to an industry average of 90%. Id.

These figures are shown in more detail in a note to AWW's financial statement for 2004 (the relevant portion is attached as Schedule SJR-8). The exhibit shows that at December 31, 2004, AWW's pension obligation was \$704.9 million, but AWW's pension assets had a value of only \$427.8 million. ¹

¹ To the best of my knowledge, the year-end 2004 financial statement is the most recent one available for AWW.

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1 Q. When RWE acquired AWW, was AWW's pension plan so poorly funded?

No, it was not. According to AWW's annual report for the year ending December 31,

2001, AWW's pension plan at that time was under-funded by \$110.8 million - assets of

\$365.9 million compared to a benefit obligation of \$476.8 million (a pension funding

ratio of 77%). The relevant pages from AWW's 2001 annual report are attached as

Schedule SJR-9.

Thus, in the four years since RWE acquired AWW, AWW and RWE have allowed the funding of AWW's pension plan to deteriorate significantly. Funding has not even come close to keeping up with the increases in pension liability. During RWE's ownership, the pension benefit obligation has increased by \$228 million, but the plan's assets have increased by just \$62 million.

Q. For regulatory purposes, why does the pension funding ratio matter?

At some point, the pension will need to be fully funded so that AWW can meet its obligations to its employees and retirees. That money has to come from somewhere – it may come out of needed capital or maintenance spending, or it may come from higher rates paid by customers. In any event, moving from 60% funding to 100% funding over time will place yet a further strain on AWW's future cash flows and its ability to provide safe, efficient, and reliable service to the public. In fact, under a new pension law passed by Congress in early August, it appears that AWW will be required to make up its pension funding shortfall by 2015.

6. Impact of an IPO on AWW's Problems

- 2 Q. Will the proposed IPO help AWW address any of the challenges you discussed?
- 3 A. No, the IPO as proposed would not help AWW address any of these challenges. Indeed,
- 4 it is likely that the IPO would worsen AWW's ability to raise the capital that it needs to
- 5 make significant progress in these areas.

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- 6 Q. Will the IPO raise additional capital for AWW?
- 7 A. No, as it is currently structured, the proceeds of the IPO all will go to RWE; AWW
- 8 would not receive a penny from the IPO. In fact, AWW projects that it will spend
- 9 \$14 million on financial advisors and attorneys to make the IPO happen (Schedule
- SJR-10). In addition, according to a document recently filed by AWW in the New Jersey
- approval proceeding, AWW is projecting that it will spend \$18.1 million to comply with
- new responsibilities for publicly traded companies in the United States, including
- Sarbanes Oxley (Schedule SJR-11). Thus, AWW will actually have a net loss of cash as a
- result of the IPO.
- In addition, as Dr. Woolridge discusses in his testimony, AWW is being required
- to refinance all of the debt and preferred stock that RWE holds, but AWW will receive no
- new funds as a result.
- 18 Q. Will removing AWW from the RWE / Thames corporate family help AWW address
- the fundamental problems in AWW's business that RWE has highlighted?
- 20 A. No, it will not. Making AWW a stand-alone company will not solve anything, and will
- 21 actually remove a level of corporate oversight that could be important in rehabilitating
- 22 AWW's operations. The types of problems that RWE identified ineffective

Q.

A.

management, inadequate ability to engage in and value unregulated activities, and inefficient and inadequate maintenance and capital replacement practices – are systemic in nature and will require a serious change of direction and focus at AWW. AWW needs to become more efficient, better utilize its capital, reduce waste, and focus its attention on customer service and operational efficiency. These are tremendous challenges that will require the full attention of AWW's management. Unfortunately, the IPO will be diverting management's attention away from these problems – not only during the next year when the IPO process takes place, but beyond that as management copes with the new responsibilities of being a publicly traded company.

In addition, removing RWE and Thames from the picture is likely to have two additional adverse consequences. First, it is likely to increase AWW's cost of capital, as Dr. Woolridge demonstrates, making it more difficult and expensive for AWW to raise the capital it needs to address its deficiencies.

Second, if the IPO is approved as proposed, AWW will lose the expertise and oversight of RWE and Thames. That expertise was one of the major benefits that AWW touted when it first announced the sale to RWE in 2001.

Can you be more specific about what you mean by management being distracted?

Yes. That is just a shorthand way of referring to how AWW would set priorities, with and without the IPO. A prime example of this is the effect of the IPO on prioritizing AWW's information technology (IT) investments. Rather than using its IT resources and personnel to reduce costs, improve efficiency, or enhance customer service, AWW has

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redirected its efforts to becoming compliant with the Sarbanes Oxley Act – a process designed to protect stockholders of publicly traded companies; not one to help customers.

Indeed, in response to AG set 2, no. 17, AWW states that it has put a project on hold that would consist of "enhancements to system information technology to replace aging information and data handling systems and to improve operational efficiency.

Implementation of such systems has been delayed due to resource constraints associated with ensuring that AWW is Sarbanes-Oxley compliant." This is precisely the type of problem I am referring to when I talk about management being distracted by the IPO.

Q. But isn't the proposed transaction just returning AWW to the way it was before 2002?

No, it is not. Before the RWE acquisition, AWW was controlled by the family of the company's founder, John Ware, and a few key officers. Collectively, this group owned 28.6% of AWW's common stock and they controlled the board of directors. After the RWE acquisition, AWW lost many of its key people. Moreover, there appears to have been a change in corporate culture, which used to take great pride in the quality of service received by customers. In its place, we have increasing evidence of a company that seems to lack direction. Its investments in unregulated operations are failing (as Dr. Woolridge explains), it is losing tremendous amounts of water, it has serious billing and customer service concerns, and it is failing to adequately invest in and maintain its distribution system.

² AWW Proxy Statement for the Special Meeting of Stockholders on Jan. 17, 2002 (issued Dec. 5, 2001), p. 3.

Q.

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In short, you cannot just snap your fingers and restore AWW to the way it used to be. It is more like trying to put Humpty Dumpty back together again – the company bears little resemblance to what it was before its acquisition by RWE.

Q. What do you conclude about the impact of the IPO on AWW?

I conclude that the proposed IPO would be detrimental to AWW. The IPO will not help AWW address any of its serious problems. Further, the IPO actually will make it even more difficult for AWW to remedy those problems. Simply, AWW will lose access to RWE's and Thames's expertise, oversight, supervision, and lower cost capital. Further, the IPO process itself will serve as a major distraction to AWW's management and will cost AWW millions of dollars that could be better spent elsewhere.

7. Effect on KAWC and its Customers

What effect will the IPO have on KAWC?

It appears that KAWC is experiencing some of the same problems that plague AWW as a whole. For example, KAWC has failed to address its source of supply problems for more than a decade. With the significant growth being experienced in its service area, it appears that KAWC cannot continue to put off dealing with its apparent water supply shortage. While KAWC still has not presented its plan for addressing its water supply deficiency, it will doubtless require a substantial investment of new capital.

Similarly, KAWC is experiencing significant levels of non-revenue water (that is, water that is produced but never passes through customers' meters). According to

³ From 1990 to 2003, the population of Lexington-Fayette increased by more than 18%. U.S. Census Bureau, State & County QuickFacts, < http://quickfacts.census.gov >, accessed August 11, 2006.

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KAWC, its level of non-revenue water is 15.3% (response to AG set 2 no. 18). While this is somewhat better than AWW's average level of losses, it is still unacceptably high, especially in a service area with a water supply deficiency.

Thus, at the same time KAWC faces an apparently large need for capital to address these problems, the cost of debt is likely to increase over what it would be if RWE remained an active owner in AWW. In addition, KAWC will lose access to the expertise and oversight that RWE or Thames might be able to provide in planning a project of this magnitude.

In short, KAWC and its customers will not receive any benefits from the IPO.

Indeed, as is the case with AWW, KAWC and its customers are likely to be made worse off by the IPO, through higher capital costs, reduced access to capital, management distraction, and increased costs associated with supporting a publicly traded company.

- Q. What do you conclude about the effects of the proposed IPO on KAWC and its customers?
- 15 A. I conclude that the proposed IPO would be detrimental to KAWC and its customers.

8. Financial Fall-out of IPO: Preferred Stock

Q. Does the proposed IPO have any other financial consequences for AWW?

Yes, it does. If RWE is permitted to sell its common stock in AWW, that results in the automatic call of approximately \$1.75 billion in preferred stock that TWAUSHI holds in AWW. Schedule SJR-5, page 3. Apparently, this is part of a more complex financial arrangement, involving other RWE subsidiaries, designed to shield RWE from tax

liability. <u>Id.</u> In the limited amount of time available so far, I have not been able to fully explore this transaction. But it appears that one immediate consequence of the IPO is that AWW will have to come up with \$1.75 billion in cash to redeem the preferred stock held by RWE.

5 Q. Why was the preferred stock issued?

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The preferred stock was issued in June 2003 to "help fund the acquisition of American Water" by RWE. Schedule SJR-5, page 3. In other words, it was part of the financing package that was put in place by RWE to fund its initial purchase of AWW.

Q. Do you have any concerns with that preferred stock?

Yes, I do. First, if the summary provided of that preferred stock issuance is accurate, I am very concerned about its very existence. According to the summary, the issuance is guaranteed by "each of the Issuer's existing and subsequently acquired or organized domestic subsidiaries and any parent holding companies of the Issuer." Schedule SJR-5, page 3. The "Issuer" is AWW, so this provision would make KAWC and all of AWW's other operating companies guarantors of this obligation. This is very troubling and appears to violate express provisions in the order issued by this Commission when it approved RWE's purchase of AWW. In that order, the Commission ruled that KAWC was "prohibited from guaranteeing the debt of RWE, Thames, TWUS, AWWC, or any of their affiliates or subsidiaries without the prior approval of the Commission" and that KAWC would not "pledge any assets to finance any part of the purchase price paid by Thames for AWWC stock." Thus, I have serious concerns about the preferred stock issuance itself.

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Second, I also have concerns about the way in which this transaction will affect the preferred stock. The first part of the proposed transaction is the merger of TWAUSHI and AWW, with AWW as the surviving corporation. TWAUSHI is the holder of the preferred stock. Once it merges with AWW, then the preferred stock would cease to exist. It is unclear whether the related agreements referred to in the summary ("Purchase and Sale Agreement, Forward Sale Agreement, Support Agreement, Guarantee Agreement, among others") would give rise to a parallel obligation for AWW or TWAUSHI to pay \$1.75 billion to another RWE subsidiary. In other states where the discovery schedule permitted further discovery, additional data requests on this issue have been sent out, but we have not received the response as of the due date of this testimony. I do not know if it is possible to further explore this issue in Kentucky, but I recommend that the Commission do so if possible.

13 Q. Why is this preferred stock important?

14 A. Financing the preferred stock redemption appears to be a significant concern for AWW,
15 as Dr. Woolridge discusses in his testimony.

16 Q. What do you recommend?

I recommend that the Commission fully investigate and understand the preferred stock issuance and related agreements. Given the complexity of the related transactions, the proposed merger of TWAUSHI, and the questionable nature of the guarantees, it is unclear whether there is even a valid obligation that AWW is required to repay. Further, if the Commission finds that AWW or KAWC violated the law when it agreed to KAWC guaranteeing the issuance, then the Commission should consider appropriate sanctions

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against AWW and/or KAWC, including fines or civil penalties and the possibility of voiding the underlying transaction.

9. IPO Recommendation

Do you have any recommendations concerning RWE's sale of its entire interest in AWW? Yes, I am troubled by RWE's lack of commitment to AWW and its apparent failure to understand the long-term nature and capital intensity of the water business. In 2001, RWE made a commitment to AWW and its customers. In September 2005, less than three years after RWE took ownership of AWW, RWE decided that it no longer wanted the responsibility of running a major water utility. RWE seemed to be surprised by the problems it found at AWW - problems that should have been readily apparent in the performance of due diligence. Issues like water losses, capital requirements, main replacement practices, and the ability of management to execute plans should have been identified and addressed during due diligence. As RWE was quick to tell us in 2002, Thames is one of the largest water utilities in the world and has tremendous expertise in these areas. It is troubling that RWE can just walk away from its commitments because it didn't realize how hard it would be. But I also do not like the idea of keeping an owner in place that does not want to be there and that is not willing to devote further capital to the enterprise.

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If RWE can just sell out, then can anything be done to help AWW address its Q. 2 serious problems?

> Yes, there is a way that the IPO process can be used to help AWW. I recommend that RWE be required to pay 20% of the proceeds from the IPO to AWW. By providing AWW with some of the funds generated through the IPO, it would serve to improve AWW's credit rating and reduce the amount of debt it needs to issue. It also would permit AWW to at least try to recover some of the up-front costs it will be incurring for the IPO and public-company compliance programs, have funds available for capital improvements, and allow AWW to start making more reasonable contributions toward its pension plan

Q. How did you determine that 20% was a reasonable amount? 11

I based this amount on the level of capital investment that AWW will require and the failure of AWW and RWE to make adequate contributions to AWW's pension fund during RWE's tenure. In a sense, the carve-out of 20% of the proceeds that I recommend is a way for RWE to make good on some of the commitments it made when it acquired AWW - commitments that have not been met, such as improving the safety, reliability, and efficiency of service.

Specifically, when RWE purchased AWW, it paid approximately \$4.6 billion for the common stock. During the year ending December 31, 2005, RWE wrote off €759 million (approximately \$900 million) of that investment. Schedule SJR-12. At this point, then, RWE's equity investment in AWW is valued at approximately \$3.7 billion. If the IPO is able to raise that amount of money, then 20% of the proceeds would be approximately \$750 million. This amount would provide AWW with the funds to cover

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its pension funding shortfall during RWE's tenure (\$166 million)⁴ and enough to fund one year (or less) of AWW's capital spending.⁵

The effect of my recommendation, then, would be to require RWE to pay the shortfall in AWW's pension funding that RWE allowed to occur, and to provide transitional funding for about one year of AWW's capital program from funds generated through the IPO.

10. Benefits of Currency Hedge

Q. Are there any other aspects to the proposed transaction that have not been fully disclosed in the Joint Petition?

Yes, there is another aspect to the transaction that would result in a substantial financial gain to RWE, but that does not appear in any of the documents provided with the Joint Petition Specifically, RWE entered into a hedging transaction when it purchased AWW to insulate itself from the risk of currency exchange rate changes.

At the time the transaction was announced, in September 2001, a U.S. dollar was worth about 1.10 euros (€). ⁶ So for every dollar earned by AWW, RWE would see earnings on its books of €1.10. In the past four years, the exchange rates have changed dramatically. During July 2006, \$1 was worth only about €0.79. So for RWE to earn €1.10 from its investment in AWW, AWW would need to earn \$1.28. That is, in order

⁴ An increase in pension liability of \$228 million, but an increase in pension assets of only \$62 million, as I discussed above.

⁵ AWW's capital program in 2005 was about \$500 million, but it is projecting substantial increases in the level of investment that is required, as I discussed previously. See Schedules SJR-6 and SJR-7. It appears likely from these public documents, therefore, that AWW's capital program in 2007 will be in the range of \$600 million or mo re.

⁶ This and the other currency cross-rates (or exchange rates) discussed here are from < http://www.x-rates.com >, as of August 3, 2006.

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for RWE's earnings to stay the same in euros, AWW's earnings would have had to increase by 28% in dollars.

As a sophisticated, multi-national company, RWE was obviously aware of the potential risk to its earnings from exchange rate fluctuations. So RWE protected its original investment in AWW by entering into a hedging transaction. This transaction is described in a note to the financial statement of Thames Water Aqua Holdings GmbH, a German subsidiary of RWE that is the intermediate holding company of both Thames Water and AWW (the relevant portion is attached as Schedule SJR-13).

How does the Thames Water Aqua Holdings financial statement describe the hedging transaction?

The document states that yet another RWE subsidiary, Thames Water Aqua International GmbH, borrowed money in U.S. dollars in 2003 that provided the hedge. In other words, RWE borrowed the money in U.S. dollars that it used to purchased AWW's common stock. As I understand the financial statement, when RWE sells its interest in AWW and TWAUSHI, it will pay back the loans that provided the hedge. RWE will then offset the gain on the loans "against the acquisition cost of the investment in TWAUSHI." Schedule SJR-13, page 2.

18 Q. Has the hedging transaction been successful?

Yes, it has. According to the financial statement, the remaining value of the loans is $\[\in \]$ 3,224,153,238.80. In January 2003, \$1 was worth $\[\in \]$ 0.94, so the U.S. dollar value of the loan would be approximately \$3.43 billion. At today's exchange rate of \$1 = \[\int 0.79 \], it would take only $\[\in \]$ 2.71 billion to pay off that loan. Thus, even though the value of RWE's

1		investment in AWW has declined, that decline in value was partially offset by the
2		currency hedge, which has generated a profit for RWE in the amount of approximately
3		€510 million (or about \$650 million).
4	Q.	What happens to that \$650 million gain?
5	A.	That money goes directly to RWE. In essence, under RWE's proposal, RWE will obtain
6		cash from four sources if it is allowed to sell AWW: (1) AWW's refinancing of debt
7		held by RWE or an affiliate; (2) AWW's redemption of preferred stock held by
8		TWAUSHI; (3) the proceeds of the IPO that sells AWW's common stock; and (4) the
9		gain on the currency hedging transaction entered into by Thames Water Aqua
10	٠	International GmbH. Dr. Woolridge estimates these amounts will total in excess of
11		{begin confidential xxxxxxxxx end confidential}.
12	Q.	Is that a reasonable result?
13	A.	It may be reasonable for RWE to obtain the benefit of the currency hedging transaction
14		11 0 7777
		standing on its own, but it is not reasonable for RWE to receive 100% of the cash from
15		all of these sources, leaving AWW with nothing. This provides further support for my
16		all of these sources, leaving AWW with nothing. This provides further support for my
16 16 17	Q.	all of these sources, leaving AWW with nothing. This provides further support for my proposal to provide AWW with some gain from the transaction.
16 17	Q. A.	all of these sources, leaving AWW with nothing. This provides further support for my proposal to provide AWW with some gain from the transaction. 11. Further Recommendations
16 17 18	_	all of these sources, leaving AWW with nothing. This provides further support for my proposal to provide AWW with some gain from the transaction. 11. Further Recommendations Do you have any other recommendations?

1 2 3 4	 For the next five years, in any KAWC rate case the cost of capital should be adjusted as Dr. Woolridge explains in his testimony. This will insulate KAWC's customers from the adverse effect on AWW's bond ratings from its divestiture from RWE.
5 6 7 8 9	 KAWC should adopt new procedures to closely monitor lost water. These are all designed to address one of the key problems that is leading RWE to abandon AWW: the high level of lost water and the failure to maintain distribution systems. This also would help address KAWC's source of supply deficiencies.
10 11	 KAWC should be required to file quarterly water loss reports with the Commission.
12 13 14 15 16 17 18	 All AWW or KAWC unregulated activities in Kentucky should be conducted through a separate corporate entity. Any services provided to that entity by KAWC should be charged at no less than KAWC's fully allocated embedded cost. This is the same method used to allocate costs among customer classes in KAWC's recent rate cases. Such a provision would help insulate KAWC and its customers from AWW's apparent failure to make profitable decisions about its unregulated activities.
20 21 22 23 24	 AWW should not be permitted to charge its regulated subsidiaries more than \$1 million per year (adjusted for inflation) for Sarbanes Oxley compliance costs. AWW should be held to its estimate of these costs and should not permit these shareholder-protection costs to erode spending on projects that could help KAWC and its customers.
25	In addition, I recommend that the Commission retain certain conditions from its
26	order that approved the acquisition of AWW by RWE. Specifically, I recommend that
27	the following conditions should be retained as between KAWC and AWW. In the
28	following list, I have changed the wording to delete references to RWE, Thames, and
29	TWUS. Conditions marked with an asterisk (*) after the number have been modified to
30	refer to a divestiture rather than an acquisition. To facilitate comparison to the
31	Commission's order in Case No. 2002-00317, I have retained the numbers as used in the

list of conditions appended to that order, as follows:

1	3. KAWC's books and records will be maintained and housed in Kentucky.
2 3	5. AWWC and KAWC will not assert in any judicial or administrative proceeding that the Commission lacks for rate-making purposes jurisdiction over KAWC's capital structure, financing, and cost of capital.
4 5 6 7	6. AWWC and KAWC will obtain Commission approval prior to the transfer of any KAWC asset with an original book value in excess of \$ 1 million or real property or real estate with a net original book value in excess of \$ 200,000.
8 9	7. KAWC will obtain Commission approval prior to any transfer of control or ownership of the land upon which Jacobson Park is located.
10 11 12	8*. Neither KAWC nor its ratepayers, directly or indirectly, will incur any additional costs, liabilities, or obligations in conjunction with TWUS, Thames or RWE's divestiture of AWWC.
13	10. The payment for AWWC stock will not be recorded on KAWC's books.
14 15	12*. RWE, Thames and TWUS's divestiture of AWWC will not affect the accounting and ratemaking treatments of KAWC's excess deferred income taxes.
16 17 18	13. No early termination costs, change in control payments, or retention bonuses paid to a KAWC or AWWC employee as a result of the proposed transaction will be allocated to KAWC or recovered from KAWC's ratepayers.
19 20 21 22	14. KAWC will not bear any costs incurred to comply with any law, regulation, standard, or practice of the United Kingdom, Federal Republic of Germany, or European Community necessary to complete the proposed transaction.
23 24 25 26 27 28	15*. For at least one year from the date of the consummation of the divestiture each of KAWC's current corporate officers will continue in his current position and perform his current duties unless he requests reassignment or retirement, is unable to continue to perform the duties of that position due to some physical, mental, or civil disability, or has engaged in some misconduct that requires his removal or reassignment.
29 30 31	16*. For at least one year from the date of the consummation of the divestiture AWWC or KAWC will notify the Commission in writing within 10 days of any changes in KAWC's corporate officers and management personnel.
32 33 34	20. AWWC and KAWC will retain separate books for each corporate entity operating within Kentucky and will follow state cost allocation guidelines, as well as all applicable codes of conduct.
35 36	21. KAWC's equity-to-capital ratio will be maintained between 35 to 45 percent. If the equity-to-capital ratio exceeds this range, AWWC and KAWC will

1 2 3	notify the Commission in writing within 30 days of this development and will submit to the Commission a detailed plan of action to return KAWC's equity-to-capital ratio to this range.
4 5 6	23. AWWC and KAWC will notify the Commission in writing within 30 days of any downgrading of the bonds of AWWC or any AWWC subsidiary and will include with such notice the complete report of the issuing bonding agency.
7 8 9	25. KAWC will not be the employer or purchaser of last resort for employees, assets, and products associated with any failed or troubled AWWC affiliate venture.
10 11	26. KAWC's utility operations will continue to be a priority and will not be used to solely benefit non-utility affiliates.
12 13	29. If AWWC issues new debt or equity in excess of \$ 100 million, it will notify the Commission in writing 30 days prior to such issuance.
14 15 16 17	31*. No later than March 31 of each year following the consummation of the proposed divestiture, AWWC will report in writing to the Commission on KAWC's proportionate share of AWWC's total assets, total operating revenues, operating and maintenance expenses, and number of employees for the most recently completed fiscal year.
19 20 21 22	32. AWWC and KAWC will obtain Commission approval prior to KAWC's payments of any dividend or transfers of any funds within a calendar year that collectively represent more than 5 percent of KAWC's retained earnings as of December 31 of the prior calendar year to AWWC.
23 24 25	34. AWWC or KAWC will file the following reports with the Commission: AWWC's quarterly interim reports to its shareholders; AWWC's annual reports to its shareholders; and AWWC's and KAWC's annual audit reports.
26 27 28 29 30 31	35. Beginning for calendar year 2006 and for the next 5 years thereafter, KAWC will include in its annual report to the Commission a table that shows each water quality standard, the number of water service interruptions, the average employee response time to water service interruptions, the number of customer complaints, and the customer inquiry response time for that calendar year.
32 33 34 35	36*. AWWC will semi-annually submit written reports to the Commission on the actual cumulative costs of the proposed divestiture. The reports should be for reporting periods ending June 30 and December 31 and submitted within 45 days of the end of the reporting period.
36 37	38*. KAWC customers will experience no material adverse change in utility service due to the divestiture.

1 · 2 · 3	39. AWWC and KAWC will adequately fund and maintain KAWC's treatment, transmission, and distribution systems; comply with all applicable Kentucky statutes and administrative regulations; and supply the service needs of
4	KAWC customers.
5	41. At least 30 days prior to any planned reduction of 5 percent or more in
6 7	KAWC's work force, AWWC or KAWC will notify the Commission in writing of the planned reduction and will include with such notice a written study of the
8	reduction's expected effects on service and KAWC's plan for maintaining service
9	quality at the reduced work force level.
10	42. AWWC will maintain AWWC's and KAWC's levels of commitment to
11 12	high quality utility service and will fully support maintaining KAWC's record for service quality.
13 14	43. KAWC will continue to protect and safeguard the condition of all of its watershed land holdings surrounding its reservoirs and well fields in Kentucky.
15	45. AWWC and KAWC will actively support economic development and
16	social and charitable activities throughout the areas in which KAWC serves for as
17	long as KAWC continues to serve those areas.
18	46*. KAWC will maintain a substantial level of involvement in community
19	activities, through annual charitable and other contributions, on a level
20 21	comparable to or greater than the participation levels experienced prior to the date of the divestiture.
22	47. AWWC will maintain and support the relationship between KAWC and
23	the communities that it serves.
24	49. At least 40 percent of the members of KAWC's Board of Directors will be
25 26	persons who are not employees or officers of AWWC, or any other AWWC
	affiliated entity, and who reside within the area that KAWC serves.
27	50. AWWC will hold all of KAWC's common stock and shall not transfer any
28	of that stock without prior Commission approval even if the transfer is pursuant to
29	a corporate reorganization as defined in KRS 278.020(6)(b).
30	51*. If any state regulatory commission imposes conditions on RWE, Thames,
31	TWUS, or AWWC as a condition for its approval of the proposed divestiture and
32	those conditions would benefit ratepayers in any other jurisdiction, proportionate
33	net benefits and conditions will be extended to KAWC ratepayers. ⁷
34	52. KAWC will retain its current name and will continue as a corporation
35	organized under Kentucky law.

⁷ I deleted the exception for the New Jersey Board of Public Utilities, which was specific to the acquisition transaction because Thames already owned operating utilities in New Jersey.

1		53. KAWC's headquarters will remain in Lexington, Kentucky.
2 3 4		54. AWWC and KAWC will honor all existing KAWC contracts, easements, or other agreements with the LFUCG, and will negotiate with the LFUCG in good faith regarding the renewal of those agreements.
5 6		55*. KAWC will not, for at least one year from the date of the consummation of the divestiture eliminate any non-management or union employee positions. ⁸
7 8 9 10 11 12		56. AWWC and KAWC will maintain a sound and constructive relationship with those labor organizations that may represent certain AWWC or KAWC employees, will remain neutral respecting an individual's right to choose to be a trade union member, will continue to recognize the unions that currently have collective bargaining agreements with KAWC, and will honor any agreements with those unions.
13 14 15 16 17 18 19		57. AWWC agrees that the Franklin Circuit Court of this Commonwealth has personal jurisdiction to hear and consider any legal action or proceeding that the Commission may bring against it to enforce the provisions and conditions set forth in this Order. It further agrees to waive all objections and defenses based upon personal jurisdiction to any action that the Commission may bring in Franklin Circuit Court to enforce the provisions and conditions set forth in this Order.
20 21 22		58. AWWC shall appoint an agent in Kentucky for the limited purpose of accepting the service of process of any action that the Commission may bring to enforce the provisions and conditions set forth in this Order.
23		12. Conclusion
24	Q.	Does this conclude your direct testimony?
25	A.	Yes, it does, based on the information I have available at this time. I reserve the right to
26		supplement this testimony as necessary or appropriate after the Commission has
27		conducted its review of the allegedly confidential documents.

⁸ I deleted the exception for call center and accounting employees, which referred to a corporate reorganization that already has been completed.

Conditions from Kentucky PSC Order in Case No. 2002-00317

- 1. KAWC will not apply to the Commission for a rate adjustment or make any other filing that has the effect of increasing its rates for water service before March 16, 2004, or one year following the date of the consummation of the proposed merger, whichever is later.
- 2. At no time prior to May 30, 2007 will KAWC apply to the Commission for recovery of costs associated with the protection of water utility assets except through adjustments in its general rates for water service.
 - 3. KAWC's books and records will be maintained and housed in Kentucky.
- 4. RWE, Thames, TWUS, AWWC, and KAWC will not assert in any Commission proceeding that Commission review of the reasonableness of any cost has been or is preempted by a United Kingdom, Federal Republic of Germany, European Community, or other foreign regulator.
- 5. RWE, Thames, TWUS, AWWC, and KAWC will not assert in any judicial or administrative proceeding that the Commission lacks for rate-making purposes jurisdiction over KAWC's capital structure, financing, and cost of capital.
- 6. RWE, Thames, TWUS, AWWC, and KAWC will obtain Commission approval prior to the transfer of any KAWC asset with an original book value in excess of \$ 1 million or real property or real estate with a net original book value in excess of \$ 200,000.
- 7. KAWC will obtain Commission approval prior to any transfer of control or ownership of the land upon which Jacobson Park is located.
- 8. Neither KAWC nor its ratepayers, directly or indirectly, will incur any additional costs, liabilities, or obligations in conjunction with TWUS, Thames or RWE's acquisition of AWWC.
- 9. KAWC will not incur any additional indebtedness, issue any additional securities, or pledge any assets to finance any part of the purchase price paid by Thames for AWWC stock.
 - 10. The payment for AWWC stock will not be recorded on KAWC's books.
- 11. The premium that Thames pays for AWWC stock, as well as all transaction-related costs, will not be "pushed down" to KAWC and will not be recovered from KAWC's ratepayers.
- 12. RWE, Thames and TWUS's acquisition of AWWC will not affect the accounting and ratemaking treatments of KAWC's excess deferred income taxes.
- 13. No early termination costs, change in control payments, or retention bonuses paid to a KAWC or AWWC employee as a result of the proposed transaction will be allocated to KAWC or recovered from KAWC's ratepayers.

- 14. KAWC will not bear any costs incurred to comply with any law, regulation, standard, or practice of the United Kingdom, Federal Republic of Germany, or European Community necessary to complete the proposed transaction.
- 15. For at least one year from the date of the consummation of the merger or until March 16, 2004, whichever occurs later, each of KAWC's current corporate officers will continue in his current position and perform his current duties unless he requests reassignment or retirement, is unable to continue to perform the duties of that position due to some physical, mental, or civil disability, or has engaged in some misconduct that requires his removal or reassignment.
- 16. For at least one year from the date of the consummation of the merger or until March 16, 2004, whichever occurs later, RWE, Thames, TWUS, AWWC or KAWC will notify the Commission in writing within 10 days of any changes in KAWC's corporate officers and management personnel.
- 17. RWE and Thames will take an active and ongoing role in managing and operating KAWC in the interests of customers, employees, and the Commonwealth of Kentucky, and will take the lead in enhancing KAWC's relationship with the Commission, with state and local governments, and with other community interests, and to advance these goals shall, among other things, arrange for meetings between RWE's and/or Thames' chief executive and the Commission and/or its Staff at least twice a year.
- 18. No later than March 16, 2003, RWE, Thames, TWUS, AWWC, and KAWC will develop and implement a mechanism to track the savings and costs resulting from the proposed merger and a methodology to allocate such savings and costs and will submit to the Commission in writing that mechanism and a detailed description of that allocation methodology.
- 19. Following the consummation of the proposed merger, RWE, Thames, TWUS, AWWC, and KAWC will submit written reports to the Commission annually on the adoption and implementation of best practices at KAWC.
- 20. RWE, Thames, TWUS, AWWC, and KAWC will retain separate books for each corporate entity operating within Kentucky and will follow state cost allocation guidelines, as well as all applicable codes of conduct.
- 21. KAWC's equity-to-capital ratio will be maintained between 35 to 45 percent. If the equity-to-capital ratio exceeds this range, RWE, Thames, TWUS, AWWC, and KAWC will notify the Commission in writing within 30 days of this development and will submit to the Commission a detailed plan of action to return KAWC's equity-to-capital ratio to this range.
- 22. AWWC will implement the revisions to its Retention Bonus Plan as set forth in Joint Applicants' Supplemental Response to Item 3(d) of the Commission Staff's Second Set of Interrogatories and Requests for Production of Documents in Case No. 2002-00018.
- 23. RWE, Thames, TWUS, AWWC, and KAWC will notify the Commission in writing within 30 days of any downgrading of the bonds of RWE, Thames, TWUS, AWWC, or any

AWWC subsidiary and will include with such notice the complete report of the issuing bonding agency.

- 24. KAWC will match in its future rate proceedings the cost of any "best practices" that are implemented with a reasonable estimate of the savings or increased revenues that will result from the implementation of such practices and will not implement the practices if the increased revenues or decreased expenses do not exceed the cost of such practices.
- 25. KAWC will not be the employer or purchaser of last resort for employees, assets, and products associated with any failed or troubled RWE, Thames, TWUS, or AWWC affiliate venture.
- 26. KAWC's utility operations will continue to be a priority and will not be used to solely benefit non-utility affiliates.
- 27. Unless the Commission requests otherwise, all documents filed with the Commission on behalf of RWE or any RWE subsidiary or affiliate will be in English and all financial statements will be stated in their original currency and in U.S. dollars (converted as of the date of the financial statement).
- 28. If RWE, Thames or TWUS issues new debt or equity in excess of \$ 100 million, it will notify the Commission in writing as soon as practicable prior to such issuance.
- 29. If AWWC issues new debt or equity in excess of \$ 100 million, it will notify the Commission in writing 30 days prior to such issuance.
- 30. No later than 30 days after the public announcement of any acquisition of a regulated or non-regulated business representing 5 percent or more of Thames' total capitalization, RWE and Thames will notify the Commission in writing of such acquisition.
- 31. No later than March 31 of each year following the consummation of the proposed merger, RWE, Thames, and TWUS will report in writing to the Commission on KAWC's proportionate share of RWE's total assets, total operating revenues, operating and maintenance expenses, and number of employees for the most recently completed fiscal year. If AWWC remains a subsidiary of Thames and TWUS and KAWC remains a subsidiary of AWWC, this report will also reflect KAWC's proportionate share of Thames's and TWUS's total assets, total operating revenues, operating and maintenance expenses, and the number of employees for the most recently completed fiscal year.
- 32. RWE, Thames, TWUS, AWWC, and KAWC will obtain Commission approval prior to KAWC's payments of any dividend or transfers of any funds within a calendar year that collectively represent more than 5 percent of KAWC's retained earnings as of December 31 of the prior calendar year to RWE, Thames, TWUS or any other entity related to RWE.

- 33. RWE, Thames, and TWUS will notify the Commission in writing at least 30 days prior to AWWC's payment of any dividend or transfer of any funds representing more than 5 percent of AWWC's retained earnings to RWE, Thames, TWUS or any other entity related to RWE.
- 34. RWE, Thames, TWUS, AWWC or KAWC will file the following reports with the Commission: RWE's quarterly interim reports to its shareholders; RWE's annual reports to its shareholders; and RWE's, Thames', AWWC's, and KAWC's annual audit reports.
- 35. Beginning for calendar year 2002 and for the next 5 years thereafter, KAWC will include in its annual report to the Commission a table that shows each water quality standard, the number of water service interruptions, the average employee response time to water service interruptions, the number of customer complaints, and the customer inquiry response time for that calendar year.
- 36. Thames, TWUS, and AWWC will semi-annually submit written reports to the Commission on the actual cumulative costs of the proposed merger. The reports should be for reporting periods ending June 30 and December 31 and submitted within 45 days of the end of the reporting period.
- 37. RWE, Thames, TWUS, AWWC, and KAWC will file with the Commission, no later than March 31 of each year, a detailed organization chart showing all subsidiaries and affiliates of RWE as of the end of the previous calendar year.
- 38. KAWC customers will experience no material adverse change in utility service due to the merger.
- 39. RWE, Thames, TWUS, AWWC and KAWC will adequately fund and maintain KAWC's treatment, transmission, and distribution systems; comply with all applicable Kentucky statutes and administrative regulations; and supply the service needs of KAWC customers.
- 40. When implementing best practices, RWE, Thames, TWUS, AWWC and KAWC will take into full consideration the related effects on the levels of customer service and customer satisfaction, including any negative effects resulting from any future work force reductions.
- 41. At least 30 days prior to any planned reduction of 5 percent or more in KAWC's work force, RWE, Thames, TWUS, AWWC or KAWC will notify the Commission in writing of the planned reduction and will include with such notice a written study of the reduction's expected effects on service and KAWC's plan for maintaining service quality at the reduced work force level.
- 42. RWE, Thames, and TWUS will maintain AWWC's and KAWC's levels of commitment to high quality utility service and will fully support maintaining KAWC's record for service quality.
- 43. KAWC will continue to protect and safeguard the condition of all of its watershed land holdings surrounding its reservoirs and well fields in Kentucky.

- 44. If RWE establishes a headquarters for its operations in the United States during the 10 years following the consummation of the proposed merger, it will locate such headquarters in the Commonwealth of Kentucky, will include in that headquarters the corporate management personnel of those operations, and will require the chief executive officer and subordinate officers of these operations to reside in Kentucky.
- 45. RWE, Thames, TWUS, AWWC, and KAWC will actively support economic development and social and charitable activities throughout the areas in which KAWC serves for as long as KAWC continues to serve those areas.
- 46. KAWC will maintain a substantial level of involvement in community activities, through annual charitable and other contributions, on a level comparable to or greater than the participation levels experienced prior to the date of the merger.
- 47. RWE and Thames will maintain and support the relationship between KAWC and the communities that it serves.
- 48. RWE, Thames, TWUS, AWWC, and KAWC will file annually with the Commission a formal analysis of any potential synergies and benefits from any water or wastewater utility merger or acquisition in the United States that occurred in the previous calendar year and that is exempted from Commission review, together with a proposed methodology for allotting an appropriate share of the potential synergies and benefits to KAWC's ratepayers.
- 49. At least 40 percent of the members of KAWC's Board of Directors will be persons who are not employees or officers of RWE, Thames, TWUS, AWWC, or any other RWE affiliated entity, and who reside within the area that KAWC serves.
- 50. AWWC will hold all of KAWC's common stock and shall not transfer any of that stock without prior Commission approval even if the transfer is pursuant to a corporate reorganization as defined in KRS 278.020(6)(b).
- 51. If any state regulatory commission, except the New Jersey Board of Public Utilities, imposes conditions on RWE, Thames, TWUS, or AWWC as a condition for its approval of the proposed merger and those conditions would benefit ratepayers in any other jurisdiction, proportionate net benefits and conditions will be extended to KAWC ratepayers.
- 52. KAWC will retain its current name and will continue as a corporation organized under Kentucky law.
 - 53. KAWC's headquarters will remain in Lexington, Kentucky.
- 54. RWE, Thames, TWUS, AWWC, and KAWC will honor all existing KAWC contracts, easements, or other agreements with the LFUCG, and will negotiate with the LFUCG in good faith regarding the renewal of those agreements.
- 55. KAWC will not, for at least one year from the date of the consummation of the merger or until March 16, 2004, whichever occurs later, eliminate any non-management or union employee

positions, except for those positions related to the transfer of accounting and call center functions to AWWC Service Company that were planned prior to the announcement of the Acquisition Agreement.

- 56. RWE, Thames, TWUS, AWWC, and KAWC will maintain a sound and constructive relationship with those labor organizations that may represent certain AWWC or KAWC employees, will remain neutral respecting an individual's right to choose to be a trade union member, will continue to recognize the unions that currently have collective bargaining agreements with KAWC, and will honor any agreements with those unions.
- 57. RWE, Thames, TWUS, and AWWC agree that the Franklin Circuit Court of this Commonwealth has personal jurisdiction to hear and consider any legal action or proceeding that the Commission may bring against them to enforce the provisions and conditions set forth in this Order and the Commission's Orders of May 30, 2002 and July 10, 2002 in Case No. 2002-00018. They further agree to waive all objections and defenses based upon personal jurisdiction to any action that the Commission may bring in Franklin Circuit Court to enforce the provisions and conditions set forth in these Orders.
- 58. RWE, Thames, TWUS and AWWC shall appoint an agent in Kentucky for the limited purpose of accepting the service of process of any action that the Commission may bring to enforce the provisions and conditions set forth in this Order and the Commission's Orders of May 30, 2002 and July 10, 2002 in Case No. 2002-00018.
- 59. TWUS shall not be involved in the operational control of KAWC or AWWC without prior Commission approval.
- 60. TWUS shall not engage in any commercial transactions involving the sale or exchange of goods or services with KAWC or AWWC. "Commercial transactions" does not include financial transactions such as the payment of dividends or the filing of a consolidated federal tax return.
- 61. Following completion of the proposed transaction, the membership of the Boards of Directors of TWUS and AWWC shall be the same.

Excerpt from the Supervisory Board minutes dated September 16, 2005

On item 3 of the agenda – Strategic alignment of the Group,

the <u>Chairman</u> made reference to the fact that the presentation on this item had been slightly shortened in view of the in-depth preparations by the Presidium.

Mr. Roels stressed that his aim was an in-depth dialog with the Supervisory Board on the strategy. He recalled that regular reports had been submitted on the strategy developments in the various RWE segments since the end of 2003. In view of constantly changing markets, there is a need for adjustments in the water strategy. The thinking on a possible strategy change in water business announced today merely constituted an interim report. Before any decision on a strategy change, a range of questions still had to be clarified. He pointed out that this subject was extremely sensitive and secrecy regarding such thinking had to be maintained at all costs.

Mr. Roels then explained the historical developments which, after the merger of RWE/VEW in 1999, had led to the development of a multi-utility concept for the RWE Group with water as a fourth pillar. After the acquisition of Thames Water in 2001 and of American Water in 2002 and after the integration of these companies, experience has now shown that the expectations that had attached to these acquisitions at that time had not been fulfilled. The coming years were likely to bring rising capital requirements in the Water division along with lower outperformance chances. While at the turn of the millennium the capital market had still believed in the theory that utilities would have to evolve into global players, it now seemed that, in effect, there could no longer be any talk of globalization of the water market. Instead, the development to be observed was toward a regional focus of the water companies. Such developments, it was said, had already been taken into account by major competitors of RWE, who had either withdrawn from this business field or were concentrating on their various home markets.

Viewed against this background, the Executive Board had to face a number of questions. The chief issues were:

- Does an isolated presence in the US create value for RWE?
- In view of the risks and the resources required, is maintenance of this presence justified?
- Is RWE the optimal owner of a business that brings no optimal synergies for the core business, energy?
- Does the limited capital return, while accompanied by relative stability, justify the maintenance of a position in water business?
- Does more financial flexibility improve RWE's starting position with regard to the consolidation of Europe's energy sector?

In the Executive Board's opinion, the first four questions must be answered with a 'no', and the fifth with a definite 'yes'.

Mr. Roels then recalled the reasons that had originally tipped the scales in favor of pursuing the multi-utility strategy. The aim of this strategy had been to reduce the dependence on electricity business in Germany, in which losses were being

posted at the end of the last century. At the time it was assumed that customers would demand multiple-play, energy-related services and solutions on a one-stop basis. The success factors assumed had been value creation from cross-selling and the bundling of products, a broadening of the customer base and the achievement of cost leadership in all segments thanks to scale effects. In those days, focusing on the water market had seemed sensible owing to the poor future perspectives for the core market Germany, substantial erosion of electricity prices and plummeting market share. At that time, RWE had water know-how in Germany only. The global water market appeared to be a utility segment with max. growth potential. The multi-utility strategy was also suggested by the possibility of risk spreading across different utilities and regions.

The acquisitions in the water sector pursued a number of goals. By purchasing Thames Water and American Water, RWE had risen to slot 3 on the global water market. Water was set to become "the most profitable and fastest growing corporate division" and make a contribution of about one third to the 2003 EBITDA. Acquisition of Thames Water was to achieve a significant position in the UK water market and to gain control of the "best positioned" company in global water business. The object of the acquisition of American Water was, in addition, to obtain market leadership in the US. Another consideration behind these acquisitions was the idea that the customer base in the water business field could be used for multi-utility services. The expansion and integration of Thames Water, in particular, was expected to help internationalize the Group.

The acquisitions were to be an investment in a global growth market. In fact, it had been assumed that sales revenue from global water business would quintuple from USD 80 billion in 2000 to USD 400 billion in 2010. For Thames Water, revenue from non-regulated UK water business was expected to at least double by 2005, viz. from 15% to 30 or 40% revenue share. Similar growth assumptions had also been made in respect of the US water market, the world's largest regional market.

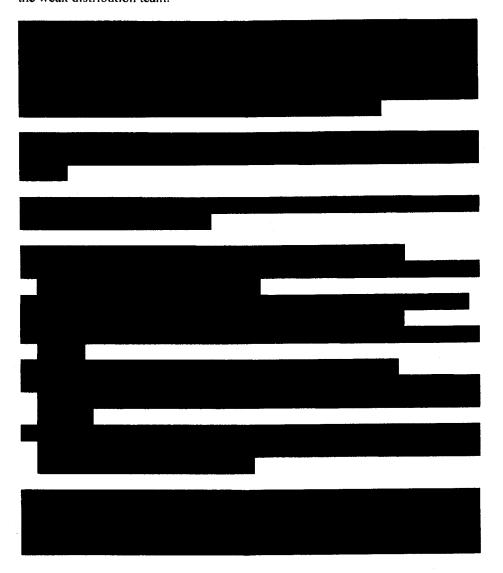
In view of these growth assumptions, high premiums had been paid for the purchase of Thames Water and American Water. For instance, relative to the 3-month average for the Thames Water share before the acquisition, the premium stood at 47%. The corresponding value for the American Water common stock had been 46%.

In the sequel, a number of adverse exogenous developments emerged. Due to a slower course taken by liberalization and to what was in places considerable political resistance to privatization of the water sector, the achievable overall market footprint was much smaller than expected. At the same time, risks in water business had been underestimated. This was true in particular of international water business. Here, unreliable regulatory authorities, in China or Indonesia, say, had not kept promises given. Highly political decision-taking processes and frequent resistance to foreign ownership had done the rest. But there had also been technical risks, like substantial distribution losses. It could be said today that the risk spread in this business field was definitely asymmetrical. High risks in the non-achievement of output targets had to be juxtaposed with only slight outperformance chances. Specifically in international water business, the obtainable return in many cases had not justified the higher risks.

Finally, it should also be noted that there had been a significant increase in the efficiency pressure on saturated markets. Although short-term improvements could quite easily be achieved, outperforming the set targets on a time axis had become more difficult.

Mr. Roels then dealt with endogenous developments that had led to performance problems and weak growth at American Water. At the time of the acquisition, for example, an accumulated value-add between 2003 and 2009 of USD

While growth in regulated basic business was largely on track (growth from investment), growth in non-regulated business was well below expectations due to the weak distribution team.

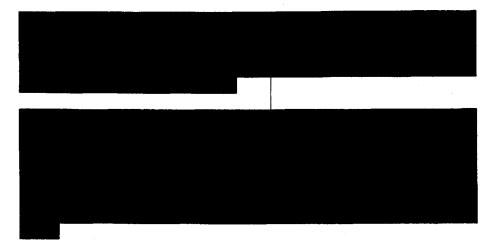




Mr. Roels then explained in detail the underlying regulatory framework for the activities of Thames Water in the UK and American Water in the US. On the one hand, Thames Water had a ring-fencing duty to maintain its substance and to adhere to agreed output and all environmental standards. On the other hand, the associated costs could not always be passed on to customers in full. The extra investment alone that Thames Water would incur under the planned EU Water Directive was put at some On the one hand, Thames Water was subject to stringent liability rules for services performed while, on the other, even those customers must be supplied who do not pay. The level of bad debts for all water companies in Britain was estimated to be GBP 800 million; it might not be possible to pass on these costs to customers in full. Owing to the asymmetric risk profile that had emerged, however, an offset between poor performance in drinking water and better performance in wastewater was not possible.

The situation in the US was also difficult. There, public resistance to privatization schemes of companies was growing. Some of the infrastructure of the water companies in the United States was outdated. Nevertheless, the regulatory requirements as regards reduction in contamination from the pipe network with the heavy metals arsenic and lead were steadily growing in severity. Here, too, the extra costs incurred could not always be passed on to customers. Specifically, it had been shown that customers responded to big rate hikes by substantially lowering their demand (rate shocks). To this must be added the fact that the regulatory environment, e.g. in Kentucky, Arizona and Virginia, was extremely difficult. What the two markets had in common was the fact that the guaranteed return is limited to approx. 6% in all after taxes, and that the leeway for outperformance is restricted. Tougher environmental standards, it was said, would require ever higher capital spending.

Mr. Roels then explained in depth the risks that arise for Thames Water and American Water from distribution losses. In Thames Water's case, for example, the distribution losses, due to London's obsolete pipe system, currently amounted to some 30% of production. This was equivalent to 915 million liters a day. The corresponding value at American Water was about 19%. London's pipe network has a total length of about 30,000 km, 50% of which is older than 100 years. Based on the 1,200 km of approved replacement in the current regulation period AMP4, replacing the entire pipe system would take more than 100 years. The regulator's aim in the current regulation periods was to obtain a significant reduction in such distribution losses. However, this would only be possible at the price of a considerable rise in investment in new networks.



The chief challenges in the US concerned an increase in efficiency and growth. Management complexity was very high. This became clear when it was realized that the company operates in 28 states, with a breakdown by 4 regions.



Mr. Roels then went on to explain the corresponding situation in the United States. There, it had become clear that the highest growth in demand was expected in the West region. However, a negative value-add was reckoned with for the years 2005 to 2009.

In addition, it had to be noted that both American Water and Thames Water in their relations with each other and with other companies in the RWE Group had only limited synergy potential. Hence, American Water – other than originally planned – had no synergies with the energy area because the scheduled entry into the US electricity market had not happened. Only at Thames Water were there limited synergies with RWE npower, most of which are likely to benefit RWE npower, however. Procurement and IT benefits, too, as part of the RWE Group, were negligible.

Using a comparison of the strategies of many utilities in the European area, Mr. Roels explained that important competitors of RWE who had likewise pursued a multi-utility approach until 2002 had been concentrating on their core business fields. Thus, Scottish Power, Centrica, Enel, E.on, Endesa, Nuon and Scottish & Southern had now withdrawn from water business. Merely Suez and Véolia were still systematically pursuing their multi-utility strategy.

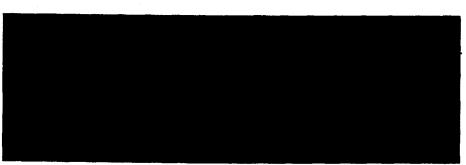
If the questions asked at the beginning were asked once more against this background, it would have to be said that RWE's isolated presence in the US creates no value. In view of the risks and the required resources, maintenance of

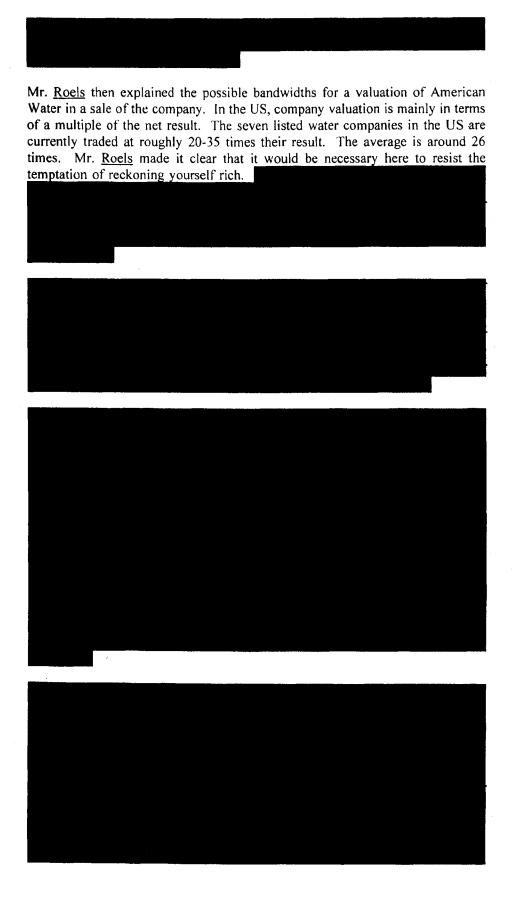
this presence could not be justified. Also to be answered in the negative was the question as to whether RWE is the optimal owner of a business that offers no significant synergies to its core business, energy. Much the same is true of the question of whether the limited capital return justifies maintaining a position in water business. Yet this still did not answer the issue of whether the financial flexibility gained from an abandonment of the water business would improve RWE's basic position in the consolidation of the European energy sector. This would require further thinking on consolidation in energy business.

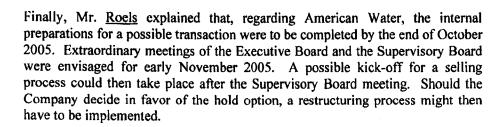
A look at the capital-market assessment of water business shows that most analysts view RWE as a pure-play energy company. Specifically, the US water activities were being undervalued as part of the RWE portfolio. Among companies that operate water as a separate business, it can be noted that pure-play, regionally focused water suppliers are currently highly rated.

Against this backdrop, a number of options for action by American Water could be identified. If a decision were taken in favor of retaining the holding in American Water, it would be essential to install a new management in the US. The restructuring of the American Water group would then have to be pursued with special urgency. It might also be necessary to have stronger links between American Water and the Group Center.

Also conceivable might be an IPO with a placement of American Water at an American stock exchange in one or more steps. One alternative would be a private placement of 100% of the shares with at least 11 institutional investors each receiving fewer than 10% of the stocks. The background for such a scatter involved regulatory obstacles. Mixed forms of IPO and private placement could also be considered in principle. In addition, the regulated water business is also very attractive for individual financial investors, like infrastructure funds, insurance companies and pension funds. By contrast, there were, it is true, only few strategic investors on the market. Looking at the risks of the various options, it can be noted that the hold option is associated with the exposure of a further worsening in the performance. There was then also the risk that the currently favorable market environment would cease to exist. But a disposal option would entail risks as well. Here, the risk of rising interest rates in the US must be cited first with correspondingly adverse implications for the achievable disposal proceeds. To this must be added the general price risk in any IPO, although this could be reduced in any private placement by fixing the purchase price in advance. There were also performance risks as regards the level and the sustainability of the company's US-GAAP result. On top of this came an implementation risk, which was marked by the high complexity of the transaction and the limited management resources in the US.







Debate:

Mr. XXX pointed out that it was not intended at today's meeting to adopt any resolution on a possible strategy change. Instead, the Executive Board was to be given a mandate to press ahead with thinking on a strategy change and, possibly, to arrange for measures needed to implement the strategy. What mattered most was to make an ACTUAL-BUDGET comparison for water business. It might then be necessary to consider the shape that could be given to the exit from water business. In future, the Company would increasingly be competing for the ever-scarcer resource "capital". It was also important, in his view, that the capital tie-up at Thames Water in the UK was growing faster than expected.

Mr. XXX welcomed the Executive Board's thinking. For him, the impact on the free cash flow was crucial. If the Executive Board opted for a continuation of activities in the water business field, this would have far-reaching consequences for the Group's other business.

Mr. XXX remarked that a quarter of the Group's result came from the water business field. Against this background, the Executive Board must consider what implications the planned strategy change would have for result planning and the Company's balance sheet. In the event that the Executive Board opted to sell the water business field, thought would have to go into how the associated developments in the result would be communicated to the market. It must also be anticipated that the focus on the power and gas business fields then expected by the capital market and the re-investment risk resulting from this would lead to unrest there, all the more so since new acquisitions would probably not be possible at favorable prices. This might give rise to future goodwill problems. In his view, Thames Water would probably be easier to sell than American Water. This was due to the fact that, in the US, any sale is subject to the consent of a number of regulators. In addition, the company's management was not yet complete either. For an acquisition of American Water there were not many strategic partners. In the case of financial investors, it must be asked whether the regulators would be willing to accept such a buyer. Experience had shown that it is easier to resolve a change of strategy than to actually implement it.

Mr. Roels pointed out that the market was quite interested in acquiring holdings in water companies. The investors concerned were pension funds and infrastructure funds with an investment horizon of at least 30 years. He shared the view that financial investors in the form of private-equity companies would, as viewed from the regulators' angle, be less suitable as buyers. American Water currently operates in 28 US states. In about half of the states, regulator approval would have to be obtained. The regulators were expected to welcome any acquisition by American buyers.

The fact was that the Executive Board was aware of the problems associated with implementing the strategy change, so that special care was being applied to planning the implementation process. He again pointed out that today's Supervisory Board meeting would not adopt any resolution on the strategy change. For the rest, this would also trigger immediate ad-hoc duties under Germany's Securities Trading Act (WpHG).

Mr. XXX was of the opinion that the strategy change indicated here was wrong. He believed that water was in fact part of the Company's core business. Although he was able to replicate the Executive Board's thinking on the intensive capital tie-up in the water business field, it must also be considered that substantial premium losses had to be expected in any sale. Also, the opportunities from water business were not being sufficiently considered. Confining the discussion to a mere look at the segment itself was wrong-headed, he felt. Not enough heed was being paid to the risk spreading argument, in particular. He felt that it was crucial that the certainty associated with regulated business had a favorable effect on the Group in the medium to long term. It was also important to retain competence in water business. Abandoning the water business was destroying value, he said.

Mr. Roels replied that he respected Mr. XXX's doubts as regards the correctness of the strategy change. He stressed that planning did not provide for an exit from water business in Germany. Here, there were synergies to be had with other business fields. Such synergies did not exist in the case of American Water. The planned entry into the US electricity market after 2001 had failed to materialize. Before a final discussion of any strategy change by the Supervisory Board, the advantages and disadvantages as well as the financial consequences of such a strategy change would be investigated and described.

Mr. XXX emphasized that, for him, an in-depth discussion of the long-term perspectives for water business and the associated risk and return expectations, on the one hand, and early involvement of the Supervisory Board, on the other, were very positive. He wished to ask the Executive Board to clarify the following 6 points before a final debate in the Supervisory Board on a possible strategy change:

- a) a clear, figures-backed statement on the future of the water market;
- b) stand-alone perspectives for American Water and Thames Water;
- c) the financial implications of the planned transactions, taking special account of any write-downs, and submission of pro-forma balance sheets;
- d) the implications for key ratios, specifically the free cash flow, in planning, and an account of the capital flows;

- e) specific statements on the exit strategy, including the requirements to be met in communicating any changes;
- f) expectations on growth and risk diversification in the future.

Here too, it was important to realize that nobody has ever grown by adopting a shrinking processes.

In the preparations for a final discussion of a possible strategy change, Mr. XXX requested that adequate heed be taken of Mr. XXX's misgivings. In this connection, he expected submission of facts on the opportunities and perspectives for the water business field.

The XXX pointed out that the conduct of the competition could not in itself be an argument. After all, there were too many examples in various industries of collective wrong decision-making. Answering a question from the XXX as to whether the Executive Board would receive a mandate for further exploration of a possible strategy change, the Supervisory Board members gave their assent.

Excerpt from the Supervisory Board minutes dated November 4, 2005

On item 1 of the agenda – Strategic alignment of the Group,

Mr. Roels, on the basis of the many Presidium discussions during the previous six weeks and the advance discussions in the Supervisory Board, started by explaining the thinking of the Executive Board on water business.

The main objects of the acquisition of the water business five years previously had been to establish a water-business line and reach an international size, and to obtain profitable growth and spread risks by having a global multi-utility portfolio. Actual goal achievement presented a more differentiated picture overall, however. Building up an international presence by acquiring Thames Water and American Water had been associated with a high entry price, Mr. Roels said. The water market as a whole had evolved otherwise than expected. It was now clear that size no longer matters. The underlying political conditions for the water market had tended to worsen. These adverse developments on the water market had also had an impact on performance. It had been particularly disappointing, Mr. Roels said, that the Water division had not achieved its growth The risk-reward ratio had clearly evolved at RWE's expense. At international level, unkept promises by government authorities, and in particular faulty market assessments, had led to considerable losses. In some countries, the outperformance chances had grown steadily smaller than the penalization risk in any non-achievement of the agreed output targets. An offset between the business fields "Water" and "Wastewater" was inadmissible in the UK. A look at the budget figures for Thames Water and American Water clearly showed that the previously announced targets had been chronically too optimistic.

the time of the acquisition, it had still been assumed that the value-add would be positive after 2005. The fall in the operating result was mainly due to cost increases and too-optimistic assumptions about growth and efficiency.

Thames Water.

too, has had to scale back its targets. Crucial here had been higher costs and overly optimistic efficiency assumptions.

The

new budget, which is based on much more realistic suppositions, showed many more downsides than upsides for the water area.

All in all, it was said, a strategic assessment of the two acquisitions after five years tended to be rather negative, even looking beyond the ratios. There were only limited synergies with other areas, and no material synergy effects between American Water and Thames Water either. Characteristic of water business is high capital intensity. As soon as agreement is reached with the regulator, the Company has to meet its investment duty if it is not to lose its operating license. In the next decade, significant additional capital spending is expected in order to meet the regulator's requirements. This would also reduce the available funds for investing in electricity and gas business, e.g. in power plants and grid renewals. After five years, it must now be said that horizontal integration as the core idea of a multi-utility concept has failed. This was now widely recognized, so that most competitors had taken leave of this strategy. Another reason for this was that

water business had a disproportionately high need for capital without offering correspondingly high return.

This being so, there were a number of arguments in favor of selling American Water and Thames Water. The risk-reward balance, for instance, was poorer than in the energy area. The trend toward under-performance compared with electricity and gas was ongoing. The options for increasing performance had to be regarded as limited. To this had to be added a considerable rise in capital needs with all the adverse implications for the free cash flow. Mr. Roels made reference to the fact that the Supervisory Board in recent weeks had held in-depth discussions about the regulatory duties of the Group's water companies. The output parameters were crucial variables for the regulator. While American Water and Thames Water were liable for any missed targets, there was the simultaneous risk that certain costs could not be passed on to customers at all or not in full. A sale of American Water would also mean that RWE in future need not fear any exposure as regards the jurisdiction of American courts in the event of any class actions. All of these arguments meant that the capital market placed a relatively low value on the RWE Group's water activities. Hence, a sale would have a positive effect on the ratios and would also enable the Group to grow in electricity and gas. In the Executive Board's opinion, it would be possible to largely manage any inherent risks from the power and gas market by vertical integration and extensions to the geographic focus. What is more, it was said, the valuation of pure-play water companies is favorable at present.

In addition, divestments would increase the Group's financial flexibility. In the European energy environment, there would be more attractive growth options in future. Selling American Water and Thames Water would boost the leeway for acquisitions, which was currently some ϵ 5 billion, to about ϵ 15 billion.

This being so, the Executive Board proposed the following change of strategy: In future, the Group would focus mainly on electricity and gas in the European core area. RWE would remain engaged in water business in the regions, however, wherever this is compatible with RWE Energy's regional strategy. The Company's presence in most or all of the links in the value-add chain would help reduce volatility. In this way, there would be the possibility of generating stable cash flows from the regulated grid business for electricity and gas. It was the aim of RWE to gain significant market shares in those countries where the Company operates. Also, the Company proposed to raise additional value potentials. The extra financial flexibility obtainable by selling American Water and Thames Water would permit the Company to utilize the possibilities offered by the next consolidation wave in the energy sector.

In any future acquisitions, stringent criteria would be set. In strategic terms, what mattered here, first and foremost, was a strengthening of RWE's market position. Any takeover targets would have to be attractive as regards growth potential, risk profiles, market position and regulations. The quality of the target companies' business would be of special importance in this respect. At any event, synergy potential with other RWE companies and the potential for stand-alone efficiency increases would have to be present. On the financial side, the return on capital employed would have to be above the pre-tax capital costs no later than the third full year of consolidation. What was required was additional value-add. The assessment would take account of the operating assets, including any goodwill.

The internal rate of return would have to be above the yield stipulations. In this respect, the Executive Board would be very disciplined in making use of the financial leeway gained from the sale. The Group's healthy financial position after American Water and Thames Water are sold would offer a guarantee that there is no need to be forced to act.

Mr. Roels then went on to illustrate the time frame for the planned implementation of the various measures. The intention was to start with the sale of American Water, because the process in its case – due to there being regulators' approval rules in at least 14 states – would be much more complicated in the United States than in Britain, where only Ofwat's consent would be required. In both markets, several sales options were being investigated. In the light of today's knowledge, the best marketing options were likely to be an IPO – be it in one or more steps – or a private placement. Also conceivable was a mixed form (hybrid) of the two transactions. The aim was to complete the two transactions in the 2007 financial year. Before the Thames Water transaction would be initiated, planning called for a retransfer of the interest-securing instruments that had been concluded when Thames Water was bought and which are currently in the money, in order to obtain the market value.



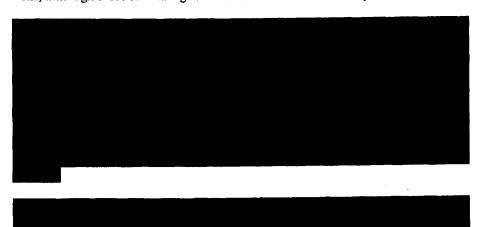
Debate:

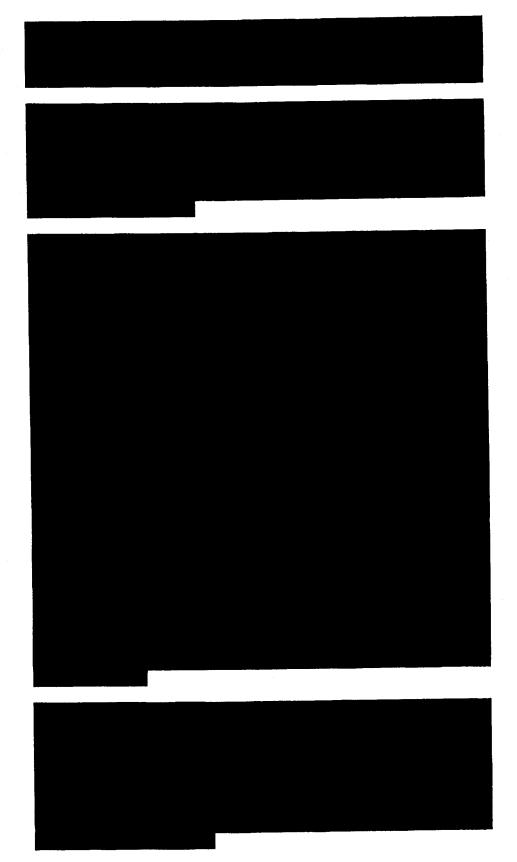
Mr. XXX explained that the planned strategy change must be closely scrutinized. The Supervisory Board had supported the multi-utility strategy when American Water and Thames Water were bought.

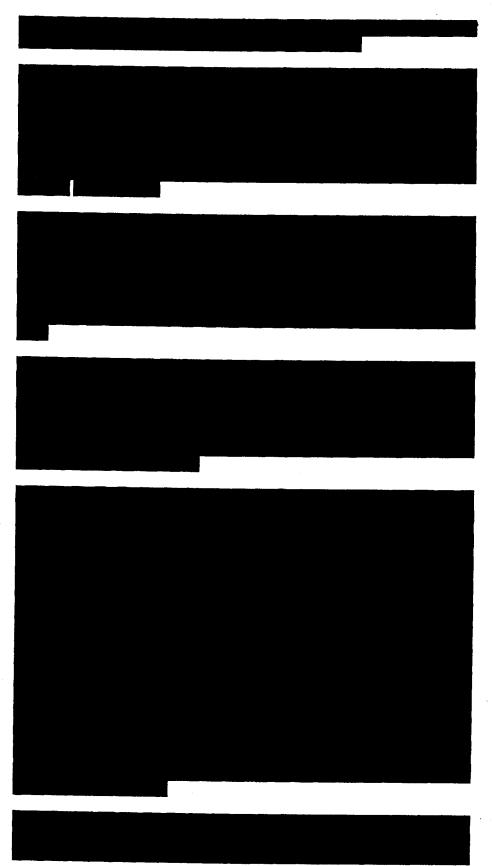
In view of the interest of 5-6% on the capital employed in the water area and interest of 8 to 12% of the capital employed in the energy area, it had to be asked whether – in the light of the upcoming liberalization of the gas market – there might not be a danger that the margin in this business field would come under pressure. To this must be added the fact that the energy utilities would increasingly be entering into direct gas acquisitions. Here, it was conceivable that a 60% share of sales revenue might be jeopardized. Nor should it be ignored that energy prices were increasingly becoming a focus of politics and that the margin could come under pressure for that reason as well. Mr. XXX went on to explain that he felt uneasy hearing the water business being identified as a supplementary business. This implied that water was no longer a core business.

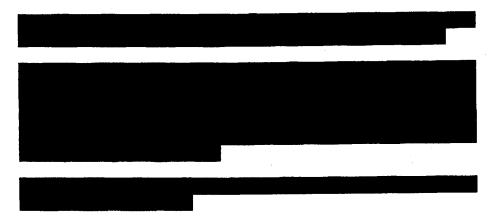
Mr. XXX also asked why the pay-out of a special dividend was envisaged from the inflow of funds from the sale of American Water and Thames Water. In his view, this contradicted the argument of high capital tie-up in these companies. The readiness of the Executive Board to propose the payment of a special dividend, he felt, was a sign that RWE's willingness to make acquisitions was not high. His impression was that what seemed to matter was a downsizing of the Company.

Regarding the negative value-add by American Water until 2010, Mr. Roels explained that none of the expectations that had attached to American Water had been fulfilled. To this must be added, he said, that the interest rate had fallen significantly in the US since the acquisition. Besides this external factor, there had also been a range of endogenous factors. For instance, American Water had had to face considerable cost hikes. Rises in efficiency were not implemented as planned. Regarding Mr. XXX's remarks on the gas market, Mr. Roels explained that an absolute return for this business field could not be guaranteed, of course. However, a comparison of energy markets with the water market showed that, in the water business field, lower return was earned across the entire business cycle than in the energy area. Both the electricity and the gas market did in fact carry risks, although these are manageable in the Executive Board's opinion.









On the planned strategy change, Mr. XXX noted that the Executive Board had submitted convincing arguments at the time when Thames Water and American Water had been bought. Today, the Executive Board would submit a new concept which, for him, had the same convincing reasons as the previous concept. Regarding a study by Goldman Sachs on water business, Mr. XXX then pointed out that the study was of the opinion that water business would become the oil business of the decade from 2020 to 2030. Investment in such a business field required stamina, therefore. In view of the fact that the Executive Board knew best what was happening on the water market, he would nevertheless follow the Executive Board's proposal. In this respect, he was also aware that any rejection of the planned strategy change by the Supervisory Board would lead to a problem for the Supervisory Board with the Executive Board as a whole.

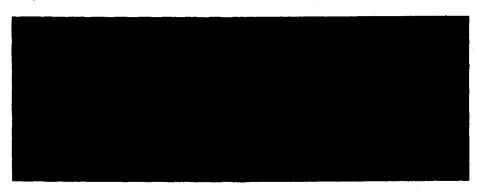
Mr. Sturany in this connection recalled that the Group's electricity and gas business had been suffering considerably from the consequences of the beginning liberalization of the electricity market at the time when Thames Water and American Water were bought. Back then, much-reduced investment in new power plants, too, had been planned. He went on to explain that the actual problem was due to developments in the free cash flow. When the stakes in American Water and Thames Water were acquired, the electricity price had been $\in 17/MWh$. Today, the corresponding forward price for the year 2006 stands at $\in 40/MWh$.

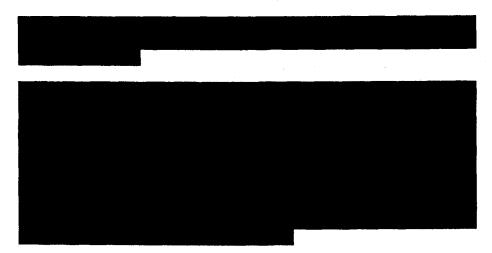
On this, Mr. XXX remarked that the Executive Board knew at the time of its decision what would be upcoming for RWE in the way of new investment. At the time, the Executive Board had mounted a DM 20 billion program in connection with the development of the Garzweiler II lignite deposit, so that there could be no talk of much-reduced scheduled investment in new power plants.

Mr. XXX pointed out that reference to a supposedly faulty market assessment at the time American Water and Thames Water were bought was problematical. It could be observed in general that capital markets are guided by short-term assessments. In this case, however, a long-term view is called for. With reference to the Goldman Sachs market study quoted by Mr. XXX, Mr. XXX remarked that this was obvious to him as well. From an analysis by the Executive Board, it had become clear that the regional approach was quite correct. Still, this only meant that selling the holding in American Water was justified. In its water business, RWE must focus on Europe. To the extent that this concerns the

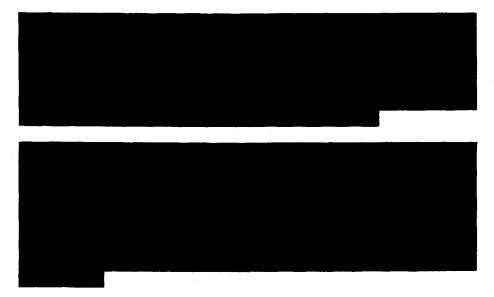
holding in Thames Water, he had serious doubts about the viability of the arguments presented.

by American Water's management, it had become clear to him that leakage problems in the US would tend to worsen in future. For instance, the share of water production in New Jersey that is lost by leakage had risen from 15% to currently 18%. The comparable value for Pennsylvania stood at 30%. While replacing Thames Water's entire pipe system would take 125 years at the current renewal rate, the corresponding figure for American Water was over 200 years. The reason for this extraordinarily high value was that American Water, across a period of several years, had not met regulatory stipulations in various US states. In part, this was due to insufficient investment by American Water in the previous 10 years prior to RWE acquiring its holding. In view of this renewal backlog, there ought to be no investment restraint in dealing with these defects. The elimination of major deviations from regulators' stipulations is likely to last into the year 2008.





Mr. <u>Sturany</u> added that, in this respect, the issue of the free cash flow was of special significance. As regards planning at American Water, he explained that planning on free cash flow I submitted by American Water's management was unrealistic due to delayed investment. For him, it had become apparent that RWE would be unable to optimally develop its water business with an increased capex.

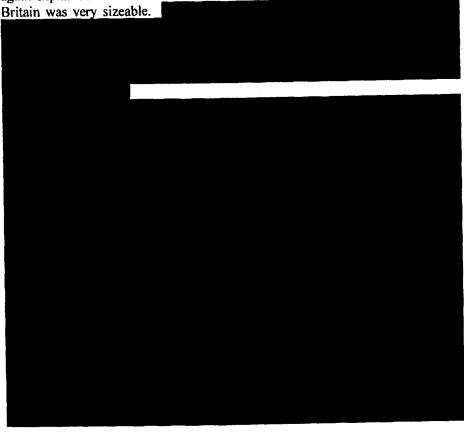


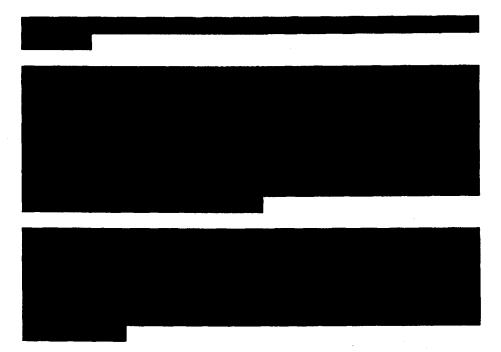
Mr. XXX pointed out that he had no problem with the planned strategy change and the associated focusing, wherever this concerns American Water. However, he did have trouble comprehending the scheduled measures in the UK. He requested an explanation of the main differences in medium-term planning at American Water and Thames Water. Mr. Roels then explained the chief reasons for the deterioration in the planning of Thames Water and American Water. These largely involved reduced quantity effects, the non-materialization of planned growth and non-achievement of targets under efficiency programs. This was true of both American Water and Thames Water. Mr. Sturany added that, owing to the price regulation, the underlying data would largely be fixed for Thames Water in respect of the period AMP4. By contrast, America's regulation was less efficiency-driven.

Mr. XXX pointed out that, in his assessment, the problems at American Water were greater than those at Thames Water, so that he would back the planned sale of American Water without further ado. By contrast, he, too, had problems with following the planned strategy change as regards Thames Water. Mr. Sturany replied that the problems from the bottleneck in the free cash flow were much greater in the British business than in the American business, so that it was necessary to shed this business as well.

Mr. XXX referred to the fact that, in connection with the purchase of Thames Water and American Water, acquisition premiums of 45% had been paid. There was a considerable risk that these acquisition premiums would be lost in any sale of American Water and Thames Water. He still believed the three-pillar strategy pursued by RWE was correct. As regards RWE's future activities in continental European water business, he expected the Executive Board to declare that RWE's water business would remain a core business. He would back the envisaged sale of American Water, though this by no means applied to the sale of Thames Water.

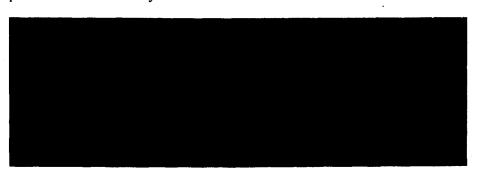
Mr. Roels remarked that he could quite easily imagine that the water business would remain in the Group as part of RWE Energy's business as an additional business field. Still, it would be hard to convey to others the logic of shedding American Water while retaining the holding in Thames Water. The staggered sequence of the planned sale was due to the fact that the transactions concerned—owing to the requirements of regulatory approvals in a number of US states—could not be handled by a certain cut-off date. In this connection, Mr. Sturany again explained that the bottleneck from the free cash flow of Thames Water in

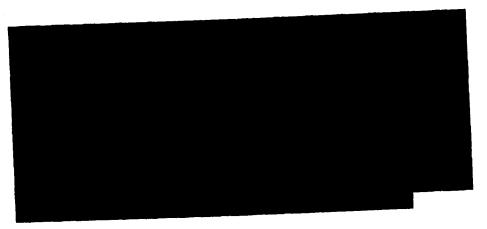




Mr. XXX then asked Mr. <u>Sturany</u> whether business secrets would be safeguarded also in dealings with analysts. Mr. <u>Sturany</u> confirmed this. Mr. XXX recalled that he had on various occasions in the past already demanded that a strategy discussion be held. The Supervisory Board must, in its view, say from time to time in which direction the Company should be evolving. Basically, he agreed with Mr. XXX's opinion. The selling process for American Water could be initiated immediately. By contrast, the decision on whether Thames Water should be sold could not be taken until the Executive Board was able to name specific acquisition projects on the markets for power and gas.

In reply to a question addressed to Mr. Roels from XXX as to whether it would be conceivable to split the water business in such a way that American Water would be sold and the stake in Thames Water retained, Mr. Roels said that the Executive Board had checked very carefully whether this option existed. The logic of such a decision would be hard to convey, however. For Thames Water, the point was that the risks and rewards from this participation were not in balance, so that the Executive Board had found no arguments in favor of this variant. If the Company took a decision in favor of this variant, he feared that the capital market would reject this strategic decision on account of its inconsistency. Critical questioning of Thames Water's planning had shown that no improvement of the situation is probable in the next two years.







Strategic Alignment of the Group

Meeting of the Supervisory Board of RWE AG **September 16, 2005**



Regulatory framework



- Potential with respect to outperformance is decreasing
- Strict liability rules for services provided
- Non-paying customers must receive further deliveries
- Asymmetric risk profile

USA

- Increasing public resistance to company privatizations
- Increasing regulatory requirements, outdated infrastructure
- "Rate shocks" substantial drops in demand after sudden high rate increases
- Unfavorable regulatory environment in some US states

UK and USA

- Guaranteed rate of return limited to app. 6% maximum after taxes; limited room for outperformance
- Increasingly demanding environmental standards







Refinancing Discussion Materials

Goldman, Sachs & Co. May 2, 2006

STRICTLY PRIVATE AND CONFIDENTIAL

American Water Credit Considerations

Key Strengths and Concerns

Strengths

- Largest water resources company in North America serving over 18 million people in 29 states and 3 Canadian provinces
- Geographic diversity mitigates regional weather exposure and unfavorable regulatory rate decisions in any particular jurisdiction
- Stable and predictable revenues from the regulated water utility due to primarily residential and commercial customers
- Favorable regulatory operating environment in the various jurisdictions of its regulated utility operations

Concerns

- Non-regulated water and wastewater operations introduce more business risk than the regulatory operations. Partially mitigated by contractual, feebased nature of the non-regulatory businesses which provide some earnings stability
- Weak FFO metrics relative to peers
- High level of capital expenditure spending necessary to upgrade and maintain water systems in compliance with regulatory standards
- Underfunded pension and OPEBs, coupled with a low pension funding ratio

Preferred-Specific Considerations

- American Water will have to consider any tax ramifications associated with retiring inter-company preferreds as the holding company currently enjoys full tax deductibility on the preferred dividend
- In addition, despite its debt-like characteristics, the rating agencies currently give 100% equity credit to the inter-company preferreds. It is unlikely that a similarly structured preferred will receive the same equity consideration

issuer:	American Water Company, Inc.
Subscriber:	Thames Water Aqua US Holdings, Inc. ("TWUS")
Size:	\$1,750mm¹ (1.75bn pref. shares)
Date Issued:	June 25, 2003
Use of Proceeds:	To replace the short term loan facility (maturity July 8, 2003) provided by RWE to American Water to help fund the acquisition of American Water (the "Bridge Loan") with longer term funding
Maturity:	Perpetual preferred
Redemption:	Non-redeemable, non-convertible
Guarantors:	Each of the Issuer's existing and subsequently acquired or organized domestic subsidiaries and any parent holding companies of the Issuer
Preferred Dividend Rate:	5.9% per annum
Dividend Payment:	Quarterly payment
Covenants:	■ In the event of a liquidation event (of which "change of control" is an example) the preferred shares must be paid down
	 American Water cannot incur debt in excess of \$50mm without prior consent from TWUS
	 Subject to certain covenants, the earliest that American Water can pay down the preferreds is 26-Dec-2012
Tax Treatment:	Several complicated agreements (Purchase and Sale Agreement, Forward Sale Agreement, Support Agreement, Guarantee Agreement, among others) are in place in order to receive favorable tax treatment on the securities
Purchase and Sale Agreement:	Between TWUS and Thames Water Investments Luxembourg, a wholly-owned subsidiary (established for tax purposes)
Forward Sale Agreement:	On December 6, 2012 (the "Delivery Date"), Thames Water will deliver the preferred shares to American Water in return for \$1.75bn plus any accrued dividends

^{&#}x27; No specific par value, though each share was issued for \$1,000,000, and there are a total of 1,750 shares outstanding.

Project N Discussion Materials March 02, 2006

of 2

Infrastructure Case Model Assumptions

- From 2006-2010, per management business plan
- Assumes refinancing at 31-Dec-2006
- From 2011-2020, key operating assumptions as follows:

						Regulated	Regulated Rate Base	
	Revenue	EBITDA	Capex	Capex/	Allowed	Regulatory	Capital	Interest
Business Line ¹	Growth	Margin	Growth	Revenue	ROE	Lag	Structure ²	Expense (%)
Base Business							E E	
Upsized Capex								
Regional Regulated Segments								
Tuck-ins								
Bulk Water								
Other Regulated							and y	
A 1MG Commonto								
Military								
, ne								
Residuals							i de la companya de l	
Carbon								
Homeowner Services								
Property								
AWM / AWWM								

- Future enterprise value calculated at 10x EBITDA
- Dividend payout ratio is maximized subject to two constraints: (1) maintaining BBB+ credit rating, and (2) not exceeding 100%

¹ Prudency adjustments assume no contribution to operating result from Regional Unregulated Segments, including O&Ms, DBOs, and Other Unregulated.
² Implied debt in rate base.

³ Acquisition and investment capex both grow at 10% per year, and maintenance capex grows at 15% per year.



Angelfish Credit Considerations

Goldman, Sachs & Co. December 12, 2005

Angelfish Credit Considerations

Strengths & Concerns

Strengths

- Largest water resources company in North America serving over 18 million people in 29 states and 3 Canadian provinces
- The geographical diversity mitigates regional weather exposure and unfavorable regulatory rate decisions in any particular jurisdiction
- Stable and predictable revenues from the regulated water utility due to primarily residential and commercial customers
- Favorable regulatory operating environment in the various jurisdictions of its regulated utility operations

Concerns

- Non-regulated water and wastewater operations introduce more business risk than the regulatory operations. Partially mitigated by contractual, fee-based nature of the non-regulatory businesses which provide some earnings stability
- High level of capital expenditure spending necessary to upgrade and maintain water systems in compliance with regulatory standards. Capital expenditure has averaged close to \$500mm over the last three years, 3x higher than that of its closest competitor
- Significant underfunded pension and OPEBs (\$277mm and \$177mm respectively) as of fiscal year-end 2004, coupled with a low pension funding ratio of 60% vs. industry average of 90%
- Weak financial profile

American Water Works Company, Inc. and Subsidiary Companies Notes to Consolidated Financial Statements December 31, 2004 and 2003

(Dollars in thousands, except per share amounts)

Note 5: Utility Plant

The components of utility plant by category at December 31 are as follows:

			2004	 2003
Water plant	Sources of supply Treatment and pumping facilities Treasmission and distribution facilities Services, meters and fire hydrants General structures and equipment	\$	429,696 1,776,475 3,982,101 1,453,886 668,573	\$ 407,402 1,726,518 3,791,687 1,356,954 641,888 345,903
Wastewater Construction	plant work in progress	385,612 195,688 8,892,009	•	 183,006 8,403,358
Less accumi	stated depreciation	\$	1,995,440 6,896,569	\$ 1,830,332 6,573,026

Depreciation expense amounted to \$226,777 in 2004 and \$212,635 in 2003.

Note 6: Employee Benefits

Pension and Other Postretirement Benefits

The Company maintains noncontributory defined benefit pension plans covering substantially all employees of its regulated utility and shared services operations. Benefits under the plans are based on the employee's years of service and compensation. The Company's funding policy is to contribute at least the minimum amount required by the Employee Retirement Income Security Act of 1974. Pension plan assets are invested in a number of investments including equity mutual funds, United States Government securities, guaranteed interest contracts with Principal and Hancock insurance companies and publicly traded bonds.

Pension expense in excess of the amount contributed to the pension plans is deferred by certain regulated subsidiaries pending future recovery in rates charged for utility services as contributions are made to the plans (see Regulatory Assets in

Note 2). The Company also has several unfunded noncontributory supplemental non-qualified pension plans that provide additional retirement benefits to certain employees of the Company and its subsidiaries.

The Company maintains postretirement benefit plans providing varying levels of medical and life insurance to eligible retirees. The adoption of a new accounting standard for other postretirement benefits caused a transition obligation of \$143,391 at January 1, 1993, which prior to the RWE acquisition was being amortized over 20 years. The Company's policy is to fund postretirement benefit costs accrued. Plan assets are invested in equity and bond mutual funds.

American Water Works Company, Inc. and Subsidiary Companies Notes to Consolidated Financial Statements December 31, 2004 and 2003

(Dollars in thousands, except per share amounts)

Note 6 (continued):

The obligations of the plans are dominated by obligations for active employees. Because the timing of expected benefit payments is so far in the future and the size of the plan assets are small relative to the Company's assets, the investment strategy is to allocate a large portion of assets to equities, which the Company believes will provide the highest return over the long run. The fixed income assets are invested in long duration debt securities in order to better match the duration of the plan liability.

The liabilities of the pension and other postretirement benefit plans were adjusted to their fair value at the time of the RWE acquisition. The Company periodically conducts an asset liability modeling study to ensure the investment strategy is aligned with the profile of the obligations. The long-term goals are to maximize the plan funded status and minimize contributions and pension expense, while taking into account the potential volatility risks on each of these items.

The expected long-term rate of return on plan assets is based on historical and projected rates of return for current and planned asset classes in the plans' investment portfolios. Assumed projected rates of return for each of the plans' projected asset classes were selected after analyzing historical experience and future' expectations of the returns and volatility of the various asset classes. Based on the target asset allocation for each asset class, the overall expected rate of return for the portfolio was developed, adjusted for historical and expected experience of active portfolio management results compared to the benchmark returns and for the effect of expenses paid from plan assets.

The asset allocation for the Company's U.S. pension plans at the end of 2004 and 2003 by asset category, follows:

•	Percentage of Plan Assets At Year End			
Asset category	2004	2003		
Equity securities	52%	52%		
Debt securities	47%	47%		
Cash	1%	1%		
Total	100%	100%		

The Company's other postretirement benefit plans are funded. The asset allocation for the Company's other postretirement benefit plans at the end of 2004 and 2003, by asset category, follows:

	Percentage of Ph At Year E	
Asset category	2004	2003
Equity securities	63%	62%
Debt securities	37%	38%
Total	100%	100%

American Water Works Company, Inc. and Subsidiary Companies Notes to Consolidated Financial Statements December 31, 2004 and 2003 (Dollars in thousands, except per share amounts)

Note 6 (continued):

6 (continued):					
•	Pension		Other		
	Ben	efits	Ben	efite	
	2004	2003	2004	2003	
Change in benefit obligation	,,,,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Benefit obligation					
at January 1	\$ 645,173	\$ 547,917	\$ 373,012	\$ 295,982	
Service cost	24,271	21,018	11.473	9,317	
Interest cost	41,261	37,507	21,657	19,892	
Plan participants	•	- •-	- ·	•	
contributions		•	1,422	1,281	
Amendments	969		445	1,010	
Actuarial gain (loss)	11.986	56,639	(4,187)	59,875	
Settlements	,,,,,,,,	15		,	
Special termination benefits	1,480	985	_	_	
Benefits paid	(20,232)	(18,908)	(15,752)	(14,345)	
Benefit obligation	(54)555/	(.0,000)	(14).1-2		
at December 31	\$ 704,908	\$ 645,173	\$ 388,070	\$ 373,012	
	4 10-1000	4 0 10,710	7 000,0.0		
Change in Plan Assets			•		
Fair value of plan	•			•	
assets at January 1	\$ 392,705	\$ 327,044	\$ 182,400	\$ 142,489	
Actual return on	φ 302,700	* 321,044	# 10E,700	# 172,700	
plan assets	35,148	64,691	18,208	27.546	
Employer contribution	20,215		28,484	25,429	
Plan particpants'	ZU,Z 10	19,878	20,404	20,720	
contributions			1,422	1,281	
Benefits paid	/20 2221	(18,908)	(15,752)	(14,345)	
Fair value of plan	(20,232)	(10'920)	(10,702)	(17,010)	
assets at December 31	e 497 000	e 202 70E	\$ 210,762	\$ 182,400	
assets at December 31	\$ 427,838	\$ 392,705	# 214,10Z	7 102,400	
Funded status					
at December 31	e 2277 A720	# MED 400\	\$(177,308)	\$ (190,613)	
	\$ (277,072)	\$ (252,468)	# (177, 300)	4(190,019)	
Unrecognized prior	542		1,384	4 040	
Service cost	. 915	•	1,404	1,010	
Unrecognized net	***	en eee	40.045	44.006	
actuariai (gain) loss	32,004	20,689	40,345	44,836	
Net amount recognized	\$ (244,153)	\$ (231,779)	\$ (135,579)	\$ (144,768)	
Amounts recognized in the b					
Accrued benefit liability	\$ (244,153)	\$ (231,779)	\$ (135,579)	\$ (144,768)	
Additional minimum liability	(223)	(44)	-	-	
intangible esset	129	-	~ .		
Accumulated other					
comprehensive income	94	44	_	<u> </u>	
Net amount recognized	\$ (244,153)	\$ (231,779)	\$ (135,579)	\$(144,768)	

American Water Works Company, Inc. and Subsidiary Companies Notes to Consolidated Financial Statements

December 31, 2004 and 2003

(Dollars in thousands, except per share amounts)

Note 6 (continued):

At December 31, 2004 and 2003, the projected benefit obligation, accumulated benefit obligation and fair value of plan assets for pension plans with a projected obligation in excess of plan assets were as follows:

Projected Benefit

	i		bligation Exceeds the Value of Plans' Assets		
		2004	2003		
Projected benefit obligation Fair value of plan assets	*	705,000	\$ 645,000		
Fair value of plan assets		428,000		393,000	
•		Accumula	ted Be	enefit	
		Obligation I	Excee	ds the	
	1	Fair Value of	Plens	'Assets	
		2004		2003	
Accumulated benefit obligation	\$	562,000	\$	503,000	
Fair value of plan assets		428,000		393,000	

The accumulated postretirement benefit obligation exceeds plan assets for all of the company's other postretirement benefit plans.

Information about the expected cash flows for the pension and postretirement benefit plans is as follows:

	•	ension Senesits	eneilts
2005 expected employer contributions To plan trusts	\$	17,978	\$ 27,400
To plan participants	•	1,397	176

The Company plans to contribute amounts equal to the minimum required contributions in 2005 to the qualified pension plans. The Company plans to contribute its 2005 other postretirement benefit cost to its VEBA trusts.

The following table reflects the net benefits expected to be paid from the plan assets or the Company's assets:

American Water Works Company, Inc. and Subsidiary Companies Notes to Consolidated Financial Statements December 31, 2004 and 2003 (Dollars in thousands, except per share amounts)

Note 6 (continued):

1	Pens	ion Benefits	Other Benefits				
		cted Benefit	•	cted Benefit	•	ed Federal	
•	Pi	ayments	Payments Subsid		Subsidy	dy Payments	
2005	\$	18,868	\$	17,226	\$.	· -	
2006		20,626		18,783	•	1.364	
2007		22,307		20,353		1,503	
2008		24,384		21,627		1,665	
2009		26,925		23,364		1,794	
2010 - 2014		180,322		142,510		11,242	

Because the above amounts are net benefits, plan participants' contributions have been excluded from the expected benefits.

•	Pension Benefits			Other nelits
	2004	2003	2004	2003
Weighted-average assumptions used to determine December 31 benefit obligations				
Discount rate:	6.00%	6.25%	8,00%	6.25%
Rate of compensation increase	4.75%	4.75%	N/A	N/A
Medical trend	NA	NA	graded from 10% in 2005	graded from
			to 5% in 2010+	to 5% in 2009+
Weighted-average assumptions used to determine net periodic ocet				
Discount rate	6.25%	8.76%	6.25%	6.75%
Expected return on plan assets	8.75%	8.75%	8.40%	
Rate of compensation increase	4.76%	4.75%	NA	. NA
Medical trand	N/A	NA	graded from 10% in 2004 to 5% in 2009+	graded from 9% in 2003

Assumed health care cost trend rates have a significant effect on the amounts reported for the other postretirement benefit plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	One-Percentage- Point Increase	One-Percentage- Point Decrease
Effect on total of service and interest cost components Effect on other postretireme	\$ 6,279	\$ (5,034)
benefit obligation	\$ 54,293	\$ (44,472)

American Water Works Company, Inc. and Subsidiary Companies Notes to Consolidated Financial Statements December 31, 2004 and 2003

(Dollars in thousands, except per share amounts)

Note 8 (continued):

• •		2004		2008
Components of net periodic				_
pension benefit cost		24,271	•	21,018
Service cost	4		-	37,507
interest cost		41,281		31,001
Expected return on		/A		MB 7441
plan assets		(34,486)		(28,741)
Recognized net actuarial				
(gain) loss		64		-
Settlement charge/(credit)		<u> </u>		15
Net periodic pension				
benefit cost	\$	31,129	_\$	29,799
Special termination pension benefit charge	\$	1,460	\$	985
Components of net periodic other				
postretirement benefit cost				
Senice cost	\$	11,473	\$	9,317
Interest cost		21,657		19,892
Expected return on		-		
plan assets		(15,895)		(12,505)
Amortization of prior		, ., ,		
service cost		72		-
Recognized net actuarial			•	
(gain) loss		(12)		-
Net periodic other				
postretirement benefit cost	\$	17,295	\$	16,704

The total additional minimum liability for the pension plans has increased from \$44 at December 31, 2003 to \$222 at December 31, 2004. This increase is primarily attributable to a decrease in discount rate from 6.25% to 6.00%

Savings Plans for Employees

The Company maintains 401(k) savings plans that allow employees to save for retirement on a tax-deferred basis. Compensation expense associated with these savings plans was \$3,761 in 2004, and \$3,667 in 2003. Included in the above expenses were the Company's matching contributions to the primary savings plan totaling \$2,879 for 2004 and \$2,916 for 2003. These funds were primarily invested in a retirement trust fund.

Employees' Investment Plan

Upon completion of the Merger, the Company created the Employees' Investment Plan and converted the Employees' Stock Ownership Plan into this plan. Each participating employee can elect to contribute an amount that does not exceed 2% of their wages. In addition to the employee's participation, the Company makes a

American Water Works Company, inc. and Subsidiary Companies Notes to Consolidated Financial Statements December 31, 2004 and 2003

(Dollars in thousands, except per share amounts)

Note 6 (continued):

contribution equivalent to 1/2% of each participant's qualified compensation, and matches 100% of the contribution by each participant. The Company made contributions to the plan totaling \$1,377 for 2004 and \$1,649 for 2003 that were primarily invested in a retirement trust fund. This plan was discontinued as of May 22, 2005.

Note 7: General Taxes

Components of general tax expense for the years presented in the consolidated statement of income and comprehensive income are as follows:

		2004		2003
Gross receipts and franchise	-\$	42,513	\$	44,046
· Property and capital stock		74,234		66,119
Payroli		21,169		21,353
Other general		7,954		6,120
	\$	145,870	* \$	137,638

Note 8: Income Taxes

Components of income tax expense for the years presented in the consolidated statement of income and comprehensive income are as follows:

		2004	 2003
State Income taxes			
Current	\$	17,703	\$ 14,435
Deferred			
Current ·		(149)	(103)
Non-current		(998)	 5,934
•	\$	16,556	\$ 20,266
Federal income taxes			
Current	. \$	(8,155)	\$ 2,140
Deferred		• • •	•
Current		(7,041)	(1,379)
Non-current		99.054	47.227
Amortization of deferred		,•• •	,
investment tax credits		(1,409)	(1,450)
411 441144	\$	84,449	\$ 46,538

American Water Works Company, Inc.

2001 Annual Report

Schedule SJR-9, page 2 of 3

Each Right under the amended plan entitles shareholders to buy one share of the Company's common stock at an exercise price of \$150. Each Right entitles its holder to purchase, at the Right's then-current exercise price, shares of the Company's common stock, or a number of shares of an acquiring company's stock, which would have a market value of two times the exercise price. The Rights become exercisable if there is a public announcement that a person or group acquires, or commences a tender offer to acquire, 10% or more of the outstanding shares of the Company. The Rights also become exercisable if the Company is acquired in a merger or a person or group acquires 10% or more of the outstanding shares of the Company.

The Rights are redeemable, in whole, but not in part, by the Company at a price of \$.0005 per Right under certain circumstances. The Rights do not have voting or dividend rights and, until they become exercisable, have no dilutive effect on the earnings per share of the Company.

In accordance with the RWE merger agreement, as of September 16, 2001, the Company amended the rights agreement to provide that none of the approval, execution, delivery or performance of the merger agreement or the voting agreement or the completion of the transactions contemplated thereby will cause the rights under the rights agreement to be adjusted or become exercisable. The amendment also provides that the rights will terminate immediately prior to the completion of the merger.

Note 8: Employee Benefits

Pension and Other Postretirement Benefits

The Company maintains noncontributory defined benefit pension plans covering substantially all associates employed in its regulated utility and shared services operations. Benefits under the plans are based on the associate's years of service and compensation. The Company's funding policy is to contribute at least the minimum amount required by the Employee Retirement Income Security Act of 1974. Pension plan assets are invested in a number of investments including equity mutual funds, United States Government securities, guaranteed interest contracts with a major insurance company and publicly traded bonds.

The Company realized a \$16,574 settlement gain in 2000 in connection with the purchase of non-participating annuity contracts to cover vested benefits of certain retirees. These benefits had previously been provided through an immediate participation guarantee contract.

Pension expense in excess of the amount contributed to the pension plans is deferred by certain regulated subsidiaries pending future recovery in rates charged for water services as contributions are made to the plans (see Regulatory Assets in Note 2). These subsidiaries have recorded their \$12,742 portion of the settlement gain as a reduction of the regulatory asset. The remaining \$3,832 of the settlement gain was recognized as pension income in 2000.

The Company also has several unfunded noncontributory supplemental non-qualified pension plans that provide additional retirement benefits to certain associates of the Company and its subsidiaries. The Company maintains postretirement benefit plans providing varying levels of medical and life insurance to eligible retirees. The adoption of a new accounting standard for other postretirement benefits caused a transition obligation of \$143,391 at January 1, 1993 which is being amortized over 20 years. The Company's policy is to fund postretirement benefit costs accrued. Plan assets are invested in equity and bond mutual funds.

	Pension Benefits		Postre	ther stirement nefits
	2001	2000	2001	2000
Change in benefit obligation	2001			
Benefit obligation				
at January 1	\$423,463	\$548,074	\$240,193	\$204,441
Service cost	15,963	14,198	7,391	6,728
Interest cost	32,663	39,952	17,293	16,455
Plan participants'	•			
contributions	_		916	1,080
Amendments	325		(10,389)	637
Actuarial (gain) loss	13,954	51,057	15,734	20,864
Acquisitions	_	374	_	1,035
Settlement	_	(212,660)		
Benefits paid	(9,609)	(17,532)	(11,024)	(11,047)
Benefit obligation				0040 400
at December 31	\$476,759	\$423,463	\$260,114	\$240,193
Change in Plan Assets				
Fair value of plan				A440 044
assets at January 1	\$380,773	\$598,302	\$150,347	\$148,014
Actual return on				(0.044)
plan assets	(6,406)		(7,369)	
Employer contribution	1,172	1,109	18,207	15,641
Plan participants'			~~	4 000
contributions	_		916	1,080
Settlement		(212,660		
Acquisitions		374		(11,047)
Benefits paid	(9,609			(11,047)
Other		3,776		
Fair value of plan assets		#AAA 779	#4E4 077	¢150 3/17
at December 31	\$365,930	\$380,773	\$151,077	\$130,347
Funded status at	A/448 604	M # (40 COC	v e4400.027	1) \$ (89,846)
December 31	\$(110,823) \$ (42,09 0) \$(103,0 3/	η φ (03,040)
Unrecognized net transition	(4.204	1 (2.55)	1) 75,044	81,681
obligation (asset)	(1,394) (2,554	10,041	01,501
Unrecognized prior	£ 464	7,356	6 (4.389	6,249
service cost	6,184	, ,,,,,,	, (7,000	., 0,0
Unrecognized net	43,684	(12,52	6) 24,57 4	(12,014)
actuarial (gain) loss	€ (£7 3£)	\$ (50.41		\$ (13,930)
Net amount recognized	4 (02,000	γ ψ (00,-21·	., + (,	
Amounts recognized in the ba	alance sheet (onsist of		
Amounts recognized in the ba	112 S 312	2 \$ 43	9 \$ -	- \$ -
Prepaid benefit cost	(62,66			3) (13,930)
Accrued benefit liability	(94)	*	,	_ `
Additional minimum liability	94		.*	
Intangible asset	• • •	5) \$(50,414		\$(13,930)
Net amount recognized	\$ (02,33	φ(30,41.	7) 4(10,000	7 7(.5,550)

Schedule SJR-9, page 3 of 3

(Dollars in thousands, except per share amounts)

The projected benefit obligation and accumulated benefit obligation for pension plans with accumulated benefit obligations in excess of plan assets (the supplemental plans are unfunded) were \$23,709 and \$19,130, respectively, as of December 31, 2001, and \$21,847 and \$18,131, respectively, as of December 31, 2000.

		2001	2000	1999
Components of net periodic				
pension benefit cost				
Service cost	\$15	,963	\$14,198	\$17,614
Interest cost	32	,663	39,952	41,151
Expected return on plan assets	(33	,921)	(44,146)	(46,387)
Amortization of transition asset	(1	,161)	(1,828)	(2,159)
Amortization of prior				
service cost	1	,496	2,405	2,312
Recognized net actuarial (gain)	loss (1	,927)	(5,580)	19
Net periodic pension benefit cos	st 13	,113	5,001	12,550
Settlement gain		-	(16,574)	_
Total pension (income) cost	\$13	,113	\$ (11,573)	\$ 12,550
Components of net periodic of postretirement benefit cos Service cost Interest cost	t \$7 17	,391 ,293	\$ 6,728 16,455	\$7,581 14,938
Expected return on plan assets	•	,865)	(11,976)	(9,759)
Amortization of transition oblig		,637	6,812	6,812
Amortization of prior service co		248	455	458 213
Recognized net actuarial (gain) Net periodic other	1088	(564)	(2,407)	213
postretirement benefit cost	<u>\$18</u>	,140	\$16,067	\$20,243
		nsion nefits		Other stretirement Benefits
	2001	20	00 200 1	2000
Weighted-average assumption as of December 31	IS			
Discount rate	7.25%	7.50	% 7.25%	7.50%
Expected return on plan assets	9.00%	9.00	% 8.30%	8.30%

The health care cost trend rate, used to calculate the Company's cost and obligation for postretirement health care benefits, is a 10% annual rate in 2002 that is assumed to decrease gradually to a 5.0% annual rate in 2007 and remain at that level thereafter.

4.75%

4.75%

4.75%

4.75%

Rate of compensation increase

Assumed health care cost trend rates have a significant effect on the amounts reported for the other postretirement benefit plan. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	One-Percentage- Point Increase	One-Percentage- Point Decrease	
Effect on total of service and interest cost components	\$ 3,745	\$ (3,142)	
Effect on other postretirement benefit obligation	\$33,814	\$(29,053)	

Savings Plans for Employees

The Company maintains 401(k) savings plans that allow associates to save for retirement on a tax-deferred basis. Compensation expense associated with these savings plans was \$3,836 in 2001, \$3,373 in 2000 and \$3,491 in 1999.

Included in the above expenses were the Company's matching contributions to the primary savings plan totaling \$3,398 for 2001, \$2,958 for 2000 and \$2,781 for 1999 that are invested in a fund of Company common stock.

Employees' Stock Ownership Plan

The Company maintains an Employees' Stock Ownership Plan which provides for beneficial ownership of Company common stock by associates who are not included in a bargaining unit. Each participating associate can elect to contribute an amount that does not exceed 2% of their wages. In addition to the associate's participation, the Company makes a contribution equivalent to 1/2% of each participant's qualified compensation, and matches 100% of the contribution by each participant. The Company recorded as an expense contributions of \$1,721 for 2001, \$1,765 for 2000 and \$1,805 for 1999 that it made to the plan.

Note 9: Stock-Based Compensation

In May 2000 the Company's shareholders approved the 2000 Stock Award and Incentive Plan (2000 Plan). The Plan replaced the Company's previous Long-Term Performance-Based Incentive Plan (Previous Plan) which had been in effect since 1994. Under the Previous Plan, awards could be paid in the form of cash, restricted shares of common stock, or a combination of both. The 2000 Plan allows the Company to continue to grant long-term performance-based awards similar to those that could be paid under the Previous Plan, and also authorizes a broad range of other awards, including options, reload options, deferred stock, performance awards, stock appreciation rights and other stock-based awards, as well as cash-based awards. Up to 4,276,551 shares of common stock may be issued under the 2000 Plan, of which approximately 3,300,000 shares were available to be granted at December 31, 2001.

Stock Options

In May 2000 the Board of Directors approved the issuance of non-qualified stock options to executives and other key associates as permitted under the 2000 Plan. Under this plan the options generally are granted at prices not less than the market value of the stock at the date of grant, become exercisable ratably over a three-year period beginning one-year from the date of grant, and expire ten years from the date of grant. The options immediately vest in the event of a change in control. The Company applies the intrinsic value-based methodology

I/M/O The Joint Petition Of Thames Water Aqua Holdings GmbH, et al., Concerning A
Proposed Transaction Involving The Sale By Thames Water Aqua Holdings GmbH Of Up To
100% Of The Shares Of The Common Stock Of American Water Works Company, Inc. In One
Or More Public Offerings

BPU Docket No. 06050388

Office of the Economist's Initial Discovery Requests

OCE-21

Provide a schedule listing all anticipated costs associated with the transaction. The schedule should be as detailed as possible listing the expected costs to the individual parties involved in the transaction.

Response:

As of July, 2006, Thames and RWE expect to incur total costs related to the Proposed Transaction of approximately € 10 million (approx. USD 12 million).

As of July, 2006, American Water expects to incur total costs related to the Proposed Transaction of approximately \$14 million.

No costs of the Proposed Transaction will be allocated to the New Jersey Operating Utilities, however, they may incur minimal direct costs as a result of the Proposed Transaction.

Responsible Witness:

John R. Bigelow

I/M/O The Joint Petition Of Thames Water Aqua Holdings GmbH, et al., Concerning A
Proposed Transaction Involving The Sale By Thames Water Aqua Holdings GmbH Of Up To
100% Of The Shares Of The Common Stock Of American Water Works Company, Inc. In One
Or More Public Offerings

BPU Docket No. 06050388

<u>Division of the Rate Counsel's</u> <u>Interrogatories and Requests for Production of Documents</u>

RAR-S-11

Please provide AWW's current estimate of the costs associated with establishing processes and systems to ensure AWW's compliance with laws and regulations as a publicly traded company in the United States, and provide the basis for that estimate. Concerning this:

a. Does AWW intend to recover a portion of the costs identified in the previous question from any of the New Jersey Operating Utilities? If so, approximately what percentage of AWW's costs will be allocated to any of the New Jersey Operating Utilities, and how will the allocation percentage be determined?

Response:

The current estimate of the costs associated with establishing processes and systems to ensure AWW's compliance with the laws and regulations as a publicly traded company is approximately \$18.1 million. This estimate includes approximately \$16.9 million in Sarbanes Oxley costs and approximately \$1.2 million in reporting costs.

a. Approximately 17% of these costs will be allocated to the NJOUs in conformance with the BPU-approved Services Agreement between each NJOU and American Water Works Service Company, Inc., on file with the Board. Rate recovery for the costs allocated to the NJOUs will be addressed in the appropriate base rate proceeding.

Responsible Witness:

James F. McCabe, John R. Bigelow

ILLINOIS-AMERICAN WATER COMPANY

RESPONSE TO ILLINOIS ATTORNEY GENERAL

REQUEST NUMBER AG 2.9

Person Responsible: Jens Gemmecke

Title: Senior Project Manager, Mergers & Acquisitions, RWE

Phone No.: 856-346-8355

Date Received: July 18, 2006 Docket No.: 06-0336

AG 2.9

Has RWE recovered the premium for its acquisition of the stock of AWWC? If not, does it expect to recover that premium in its sale of AWWC stock in the public offering pursuant to the reorganization proposed in the Joint Petition?

Will RWE sell AWWC stock in a public offering even if it does not recover the premium it paid for its acquisition of the stock of AWWC?

Response

No, RWE has not recovered the premium it paid when it acquired the stock of AWW.

The extent that RWE might be able to recover the premium in the Proposed Transaction will depend conditions at the time of the upon market transaction.

Please note that RWE recognized an impairment charge of EURO759 million to the book value of Thames Water Aqua US Holdings Inc. as of December 31, 2005. It will need to recover that impairment charge before the full premium is recovered.

RWE's decision to sell its stock in AWW is not related to the potential recovery, if any, of the premium it paid for AWW's stock.





Translation of the

Financial Statements of

Thames Water Aqua Holdings GmbH for the Fiscal Year from January 1, 2005 through December 31, 2005

Accounts payable with a remaining term of less than one year principally consist of refund claims regarding tax charges, allocable taxes and liabilities from profit and loss transfer agreements.

Other liabilities contain loan notes in the amount of €48,661,753.14 (previous year: €61,215,187.51) which were granted to those existing shareholders of Thames Water Plc. who had opted for signing a loan note instead of receiving cash compensation under the recommended cash offer of October 2, 2000. The term of the loan notes will end on July 10, 2006 at the latest. During the term, the creditors are entitled to demand repayment of the loan note at nominal value at specified dates. The loan notes bear interest at 6-month Libor less 0.5%.

5) Derivative financial instruments/hedges

The currency risk inherent in the purchase price of Thames Water Plc., which was acquired in 2000, is hedged by currency swaps currently totaling €5,250,000,000.00 in addition to the loan notes (€48,661,753.14) and the GBP loan of RWE AG (€972,413,793.10). In the reporting year there were concluded short-term interest swaps for €2,000,000,000.00 and matching offsetting long-term interest swaps for €2,000,000,000.00. Upon termination of the hedge, the difference between the respective repayment rate and the original GBP rate will be offset against the acquisition cost of the investment in Thames Water without an effect on the result. Currency swaps have a positive market value of €1,130,054,464.56 (previous year: €1,106,908.066.13) as of the balance-sheet date.

The currency risk inherent in the purchase price paid for Thames Water Aqua US Holdings, Inc. in 2003 was hedged using two US\$ loans of Thames Water Aqua International GmbH (€3,224,153,238.80). Upon termination of the hedge, the difference between the repayment rate and the original US\$ rate will be offset against the acquisition cost of the investment in Thames Water Aqua US Holdings, Inc.

Schedule SJR-13, page 3 of 3

The following overview shows our derivative financial instruments as of December 31,2005:

Zins/-Währungsswaps	9.250.000.000,00	7.250.000.000,00	1.130.054.464,56
	€	€	€
		>5 J.	Zeitwert
	Nominalvolumen	Remaining term	Beizulegender

The fair value generally corresponds to the market value of the derivative financial instrument if it can be reliably determined. If the market value cannot be determined reliably, the fair value is derived from the market value of similar financial instruments or using generally accepted valuation methods (discounted cash flow method, option price model).

Appendix A

Scott J. Rubin
Attorney + Consultant
3 Lost Creek Drive • Selinsgrove, PA 17870

Current Position

Public Utility Attorney and Consultant, Selinsgrove, PA. 1994 to present. I provide legal, consulting, and expert witness services to various organizations interested in the regulation of public utilities.

Previous Positions

Lecturer in Computer Science, Susquehanna University, Selinsgrove, PA. 1993 to 2000.

Senior Assistant Consumer Advocate, Office of Consumer Advocate, Harrisburg, PA. 1990 to 1994.

I supervised the administrative and technical staff and shared with one other senior attorney the supervision of a legal staff of 14 attorneys.

Assistant Consumer Advocate, Office of Consumer Advocate, Harrisburg, PA. 1983 to 1990.

Associate, Laws and Staruch, Harrisburg, PA. 1981 to 1983.

Law Clerk, U.S. Environmental Protection Agency, Washington, DC. 1980 to 1981.

Research Assistant, Rockville Consulting Group, Washington, DC. 1979.

Current Professional Activities

Member, American Bar Association, Public Utility Law Section.

Member, American Water Works Association.

Admitted to practice law before the Supreme Court of Pennsylvania, the New York State Court of Appeals, the United States District Court for the Middle District of Pennsylvania, the United States Court of Appeals for the Third Circuit, and the Supreme Court of the United States.

Previous Professional Activities

Member, American Water Works Association, Rates and Charges Subcommittee, 1998-2001.

- Member, Federal Advisory Committee on Disinfectants and Disinfection By-Products in Drinking Water, U.S. Environmental Protection Agency, Washington, DC. 1992 to 1994.
- Chair, Water Committee, National Association of State Utility Consumer Advocates, Washington, DC. 1990 to 1994; member of committee from 1988 to 1990.
- Member, Board of Directors, Pennsylvania Energy Development Authority, Harrisburg, PA. 1990 to 1994.
- Member, Small Water Systems Advisory Committee, Pennsylvania Department of Environmental Resources, Harrisburg, PA. 1990 to 1992.
- Member, Ad Hoc Committee on Emissions Control and Acid Rain Compliance, National Association of State Utility Consumer Advocates, 1991.

Member, Nitrogen Oxides Subcommittee of the Acid Rain Advisory Committee, U.S. Environmental Protection Agency, Washington DC. 1991.

Education

- J.D. with Honors, George Washington University, Washington, DC. 1981.
- B.A. with Distinction in Political Science, Pennsylvania State University, University Park, PA. 1978.

Publications and Presentations

- "Quality of Service Issues," a speech to the Pennsylvania Public Utility Commission Consumer Conference, State College, PA. 1988.
- K.L. Pape and S.J. Rubin, "Current Developments in Water Utility Law," in *Pennsylvania Public Utility Law* (Pennsylvania Bar Institute). 1990.
- Presentation on Water Utility Holding Companies to the Annual Meeting of the National Association of State Utility Consumer Advocates, Orlando, FL. 1990.
- "How the OCA Approaches Quality of Service Issues," a speech to the Pennsylvania Chapter of the National Association of Water Companies. 1991.
- Presentation on the Safe Drinking Water Act to the Mid-Year Meeting of the National Association of State Utility Consumer Advocates, Seattle, WA. 1991.
- "A Consumer Advocate's View of Federal Pre-emption in Electric Utility Cases," a speech to the Pennsylvania Public Utility Commission Electricity Conference. 1991.
- Workshop on Safe Drinking Water Act Compliance Issues at the Mid-Year Meeting of the National Association of State Utility Consumer Advocates, Washington, DC. 1992.
- Formal Discussant, Regional Acid Rain Workshop, U.S. Environmental Protection Agency and National Regulatory Research Institute, Charlotte, NC. 1992.
- S.J. Rubin and S.P. O'Neal, "A Quantitative Assessment of the Viability of Small Water Systems in Pennsylvania," *Proceedings of the Eighth NARUC Biennial Regulatory Information Conference*, National Regulatory Research Institute (Columbus, OH 1992), IV:79-97.
- "The OCA's Concerns About Drinking Water," a speech to the Pennsylvania Public Utility Commission Water Conference. 1992.
- Member, Technical Horizons Panel, Annual Meeting of the National Association of Water Companies, Hilton Head, SC. 1992.
- M.D. Klein and S.J. Rubin, "Water and Sewer -- Update on Clean Streams, Safe Drinking Water, Waste Disposal and Pennvest," *Pennsylvania Public Utility Law Conference* (Pennsylvania Bar Institute). 1992.
- Presentation on Small Water System Viability to the Technical Assistance Center for Small Water Companies, Pa. Department of Environmental Resources, Harrisburg, PA. 1993

- "The Results Through a Public Service Commission Lens," speaker and participant in panel discussion at Symposium: "Impact of EPA's Allowance Auction," Washington, DC, sponsored by AER*X. 1993.
- "The Hottest Legislative Issue of Today -- Reauthorization of the Safe Drinking Water Act," speaker and participant in panel discussion at the Annual Conference of the American Water Works Association, San Antonio, TX. 1993.
- "Water Service in the Year 2000," a speech to the Conference: "Utilities and Public Policy III: The Challenges of Change," sponsored by the Pennsylvania Public Utility Commission and the Pennsylvania State University, University Park, PA. 1993.
- "Government Regulation of the Drinking Water Supply: Is it Properly Focused?," speaker and participant in panel discussion at the National Consumers League's Forum on Drinking Water Safety and Quality, Washington, DC. 1993. Reprinted in *Rural Water*, Vol. 15 No. 1 (Spring 1994), pages 13-16.
- "Telephone Penetration Rates for Renters in Pennsylvania," a study prepared for the Pennsylvania Office of Consumer Advocate. 1993.
- "Zealous Advocacy, Ethical Limitations and Considerations," participant in panel discussion at "Continuing Legal Education in Ethics for Pennsylvania Lawyers," sponsored by the Office of General Counsel, Commonwealth of Pennsylvania, State College, PA. 1993.
- "Serving the Customer," participant in panel discussion at the Annual Conference of the National Association of Water Companies, Williamsburg, VA. 1993.
- "A Simple, Inexpensive, Quantitative Method to Assess the Viability of Small Water Systems," a speech to the Water Supply Symposium, New York Section of the American Water Works Association, Syracuse, NY. 1993.
- S.J. Rubin, "Are Water Rates Becoming Unaffordable?," *Journal American Water Works Association*, Vol. 86, No. 2 (February 1994), pages 79-86.
- "Why Water Rates Will Double (If We're Lucky): Federal Drinking Water Policy and Its Effect on New England," a briefing for the New England Conference of Public Utilities Commissioners, Andover, MA. 1994.
- "Are Water Rates Becoming Unaffordable?," a speech to the Legislative and Regulatory Conference, Association of Metropolitan Water Agencies, Washington, DC. 1994.
- "Relationships: Drinking Water, Health, Risk and Affordability," speaker and participant in panel discussion at the Annual Meeting of the Southeastern Association of Regulatory Commissioners, Charleston, SC. 1994.
- "Small System Viability: Assessment Methods and Implementation Issues," speaker and participant in panel discussion at the Annual Conference of the American Water Works Association, New York, NY. 1994.

- S.J. Rubin, "How much should we spend to save a life?," Seattle Journal of Commerce, August 18, 1994 (Protecting the Environment Supplement), pages B-4 to B-5.
- S. Rubin, S. Bernow, M. Fulmer, J. Goldstein, and I. Peters, *An Evaluation of Kentucky-American Water Company's Long-Range Planning*, prepared for the Utility and Rate Intervention Division, Kentucky Office of the Attorney General (Tellus Institute 1994).
- S.J. Rubin, "Small System Monitoring: What Does It Mean?," Impacts of Monitoring for Phase II/V Drinking Water Regulations on Rural and Small Communities (National Rural Water Association 1994), pages 6-12.
- "Surviving the Safe Drinking Water Act," speaker at the Annual Meeting of the National Association of State Utility Consumer Advocates, Reno, NV. 1994.
- "Safe Drinking Water Act Compliance -- Ratemaking Implications," speaker at the National Conference of Regulatory Attorneys, Scottsdale, AZ. 1995. Reprinted in *Water*, Vol. 36, No. 2 (Summer 1995), pages 28-29.
- S.J. Rubin, "Water: Why Isn't it Free? The Case of Small Utilities in Pennsylvania," Utilities, Consumers & Public Policy: Issues of Quality, Affordability, and Competition, Proceedings of the Fourth Utilities, Consumers and Public Policy Conference (Pennsylvania State University 1995), pages 177-183.
- S.J. Rubin, "Water Rates: An Affordable Housing Issue?," Home Energy, Vol. 12 No. 4 (July/August 1995), page 37.
- Speaker and participant in the Water Policy Forum, sponsored by the National Association of Water Companies, Naples, FL. 1995.
- Participant in panel discussion on "The Efficient and Effective Maintenance and Delivery of Potable Water at Affordable Rates to the People of New Jersey," at The New Advocacy: Protecting Consumers in the Emerging Era of Utility Competition, a conference sponsored by the New Jersey Division of the Ratepayer Advocate, Newark, NJ. 1995.
- J.E. Cromwell III, and S.J. Rubin, Development of Benchmark Measures for Viability Assessment (Pa. Department of Environmental Protection 1995).
- S. Rubin, "A Nationwide Practice from a Small Town in Pa.," Lawyers & the Internet a Supplement to the Legal Intelligencer and Pa. Law Weekly (February 12, 1996), page S6.
- "Changing Customers' Expectations in the Water Industry," speaker at the Mid-America Regulatory Commissioners Conference, Chicago, IL. 1996, reprinted in *Water* Vol. 37 No. 3 (Winter 1997), pages 12-14...
- "Recent Federal Legislation Affecting Drinking Water Utilities," speaker at Pennsylvania Public Utility Law Conference, Pennsylvania Bar Institute, Hershey, PA. 1996.
- "Clean Water at Affordable Rates: A Ratepayers Conference," moderator at symposium sponsored by the New Jersey Division of Ratepayer Advocate, Trenton, NJ. 1996.

- "Water Workshop: How New Laws Will Affect the Economic Regulation of the Water Industry," speaker at the Annual Meeting of the National Association of State Utility Consumer Advocates, San Francisco, CA. 1996.
- E.T. Castillo, S.J. Rubin, S.K. Keefe, and R.S. Raucher, "Restructuring Small Systems," *Journal American Water Works Association*, Vol. 89, No. 1 (January 1997), pages 65-74.
- J.E. Cromwell III, S.J. Rubin, F.C. Marrocco, and M.E. Leevan, "Business Planning for Small System Capacity Development," *Journal American Water Works Association*, Vol. 89, No. 1 (January 1997), pages 47-57.
- "Capacity Development More than Viability Under a New Name," speaker at National Association of Regulatory Utility Commissioners Winter Meetings, Washington, DC. 1997.
- E. Castillo, S.K. Keefe, R.S. Raucher, and S.J. Rubin, Small System Restructuring to Facilitate SDWA Compliance: An Analysis of Potential Feasibility (AWWA Research Foundation, 1997).
- H. Himmelberger, et al., Capacity Development Strategy Report for the Texas Natural Resource Conservation Commission (Aug. 1997).
- Briefing on Issues Affecting the Water Utility Industry, Annual Meeting of the National Association of State Utility Consumer Advocates, Boston, MA. 1997.
- "Capacity Development in the Water Industry," speaker at the Annual Meeting of the National Association of Regulatory Utility Commissioners, Boston, MA. 1997.
- "The Ticking Bomb: Competitive Electric Metering, Billing, and Collection," speaker at the Annual Meeting of the National Association of State Utility Consumer Advocates, Boston, MA. 1997.
- Scott J. Rubin, "A Nationwide Look at the Affordability of Water Service," *Proceedings of the 1998 Annual Conference of the American Water Works Association*, Water Research, Vol. C, No. 3, pages 113-129 (American Water Works Association, 1998).
- Scott J. Rubin, "30 Technology Tips in 30 Minutes," *Pennsylvania Public Utility Law Conference*, Vol. I, pages 101-110 (Pa. Bar Institute, 1998).
- Scott J. Rubin, "Effects of Electric and Gas Deregulation on the Water Industry," *Pennsylvania Public Utility Law Conference*, Vol. I, pages 139-146 (Pa. Bar Institute, 1998).
- Scott J. Rubin, *The Challenges and Changing Mission of Utility Consumer Advocates* (American Association of Retired Persons, 1999).
- "Consumer Advocacy for the Future," speaker at the Age of Awareness Conference, Changes and Choices: Utilities in the New Millennium, Carlisle, PA. 1999.
- Keynote Address, \$1 Energy Fund, Inc., Annual Membership Meeting, Monroeville, PA. 1999.
- Scott J. Rubin, "Assessing the Effect of the Proposed Radon Rule on the Affordability of Water Service," prepared for the American Water Works Association. 1999.

- Scott J. Rubin and Janice A. Beecher, The Impacts of Electric Restructuring on the Water and Wastewater Industry, Proceedings of the Small Drinking Water and Wastewater Systems International Symposium and Technology Expo (Phoenix, AZ 2000), pp. 66-75.
- American Water Works Association, Principles of Water Rates, Fees, and Charges, Manual M1 Fifth Edition (AWWA 2000), Member, Editorial Committee.
- Janice A. Beecher and Scott J. Rubin, presentation on "Special Topics in Rate Design: Affordability" at the Annual Conference and Exhibition of the American Water Works Association, Denver, CO. 2000.
- Scott J. Rubin, "The Future of Drinking Water Regulation," a speech at the Annual Conference and Exhibition of the American Water Works Association, Denver, CO. 2000.
- Janice A. Beecher and Scott J. Rubin, "Deregulation Impacts and Opportunities," a presentation at the Annual Conference and Exhibition of the American Water Works Association, Denver, CO. 2000.
- Scott J. Rubin, "Estimating the Effect of Different Arsenic Maximum Contaminant Levels on the Affordability of Water Service," prepared for the American Water Works Association. 2000.
- Janice A. Beecher and Scott J. Rubin, *Deregulation! Impacts on the Water Industry*, American Water Works Association Research Foundation, Denver, CO. 2000.
- Scott J. Rubin, Methods for Assessing, Evaluating, and Assisting Small Water Systems, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2000.
- Scott J. Rubin, Consumer Issues in the Water Industry, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2000.
- "Be Utility Wise in a Restructured Utility Industry," Keynote Address at Be UtilityWise Conference, Pittsburgh, PA. 2000.
- Scott J. Rubin, Jason D. Sharp, and Todd S. Stewart, "The Wired Administrative Lawyer," 5th Annual Administrative Law Symposium, Pennsylvania Bar Institute, Harrisburg, PA. 2000.
- Scott J. Rubin, "Current Developments in the Water Industry," *Pennsylvania Public Utility Law Conference*, Pennsylvania Bar Institute, Harrisburg, PA. 2000.
- Scott J. Rubin, "Viewpoint: Change Sickening Attitudes," Engineering News-Record, Dec. 18, 2000.
- Janice A. Beecher and Scott J. Rubin, "Ten Practices of Highly Effective Water Utilities," *Opflow*, April 2001, pp. 1, 6-7, 16; reprinted in *Water and Wastes Digest*, December 2004, pp. 22-25.
- Scott J. Rubin, "Pennsylvania Utilities: How Are Consumers, Workers, and Corporations Faring in the Deregulated Electricity, Gas, and Telephone Industries?" Keystone Research Center. 2001.
- Scott J. Rubin, "Guest Perspective: A First Look at the Impact of Electric Deregulation on Pennsylvania," LEAP Letter, May-June 2001, pp. 2-3.

- Scott J. Rubin, Consumer Protection in the Water Industry, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2001.
- Scott J. Rubin, Impacts of Deregulation on the Water Industry, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2001.
- Scott J. Rubin, "Economic Characteristics of Small Systems," Critical Issues in Setting Regulatory Standards, National Rural Water Association, 2001, pp. 7-22.
- Scott J. Rubin, "Affordability of Water Service," Critical Issues in Setting Regulatory Standards, National Rural Water Association, 2001, pp. 23-42.
- Scott J. Rubin, "Criteria to Assess the Affordability of Water Service," White Paper, National Rural Water Association, 2001.
- Scott J. Rubin, Providing Affordable Water Service to Low-Income Families, presentation to Portland Water Bureau, Portland, OR. 2001.
- Scott J. Rubin, Issues Relating to the Affordability and Sustainability of Rates for Water Service, presentation to the Water Utility Council of the American Water Works Association, New Orleans, LA. 2002.
- Scott J. Rubin, The Utility Industries Compared Water, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2002.
- Scott J. Rubin, Legal Perspective on Water Regulation, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2002.
- Scott J. Rubin, Regulatory Options for Water Utilities, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2002.
- Scott J. Rubin, Overview of Small Water System Consolidation, presentation to National Drinking Water Advisory Council Small Systems Affordability Working Group, Washington, DC. 2002.
- Scott J. Rubin, Defining Affordability and Low-Income Household Tradeoffs, presentation to National Drinking Water Advisory Council Small Systems Affordability Working Group, Washington, DC. 2002.
- Scott J. Rubin, "Thinking Outside the Hearing Room," *Pennsylvania Public Utility Law Conference*, Pennsylvania Bar Institute, Harrisburg, PA. 2002.
- Scott J. Rubin, "Update of Affordability Database," White Paper, National Rural Water Association. 2003.
- Scott J. Rubin, *Understanding Telephone Penetration in Pennsylvania*, Council on Utility Choice, Harrisburg, PA. 2003.
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- Scott J. Rubin, "Census Data Shed Light on US Water and Wastewater Costs," *Journal American Water Works Association*, Vol. 97, No. 4 (April 2005), pages 99-110.
- Scott J. Rubin, Review of U.S. Environmental Protection Agency Notice Concerning Revision of National-Level Affordability Methodology, National Rural Water Association. 2006.

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- Pa. Public Utility Commission v. Pennsylvania Gas and Water Co. Water Division, Pa. Public Utility Commission, Docket R-00922404. 1992. Concerning rate design, on behalf of the Pa. Office of Consumer Advocate.
- Pa. Public Utility Commission v. Shenango Valley Water Co., Pa. Public Utility Commission, Docket R-00922420. 1992. Concerning cost allocation, on behalf of the Pa. Office of Consumer Advocate
- Pa. Public Utility Commission v. Pennsylvania Gas and Water Co. Water Division, Pa. Public Utility Commission, Docket R-00922482. 1993. Concerning rate design, on behalf of the Pa. Office of Consumer Advocate
- Pa. Public Utility Commission v. Colony Water Co., Pa. Public Utility Commission, Docket R-00922375. 1993. Concerning rate design, on behalf of the Pa. Office of Consumer Advocate
- Pa. Public Utility Commission v. Dauphin Consolidated Water Supply Co. and General Waterworks of Pennsylvania, Inc., Pa. Public Utility Commission, Docket R-00932604. 1993. Concerning rate design and cost of service, on behalf of the Pa. Office of Consumer Advocate
- West Penn Power Co. v. State Tax Department of West Virginia, Circuit Court of Kanawha County, West Virginia, Civil Action No. 89-C-3056. 1993. Concerning regulatory policy and the effects of a taxation statute on out-of-state utility ratepayers, on behalf of the Pa. Office of Consumer Advocate

- Pa. Public Utility Commission v. Pennsylvania Gas and Water Co. Water Division, Pa. Public Utility Commission, Docket R-00932667. 1993. Concerning rate design and affordability of service, on behalf of the Pa. Office of Consumer Advocate
- Pa. Public Utility Commission v. National Utilities, Inc., Pa. Public Utility Commission, Docket R-00932828. 1994. Concerning rate design, on behalf of the Pa. Office of Consumer Advocate
- An Investigation of the Sources of Supply and Future Demand of Kentucky-American Water Company, Ky. Public Service Commission, Case No. 93-434. 1994. Concerning supply and demand planning, on behalf of the Kentucky Office of Attorney General, Utility and Rate Intervention Division.
- The Petition on Behalf of Gordon's Corner Water Company for an Increase in Rates, New Jersey Board of Public Utilities, Docket No. WR94020037. 1994. Concerning revenue requirements and rate design, on behalf of the New Jersey Division of Ratepayer Advocate.
- Re Consumers Maine Water Company Request for Approval of Contracts with Consumers Water Company and with Ohio Water Service Company, Me. Public Utilities Commission, Docket No. 94-352. 1994. Concerning affiliated interest agreements, on behalf of the Maine Public Advocate.
- In the Matter of the Application of Potomac Electric Power Company for Approval of its Third Least-Cost Plan, D.C. Public Service Commission, Formal Case No. 917, Phase II. 1995. Concerning Clean Air Act implementation and environmental externalities, on behalf of the District of Columbia Office of the People's Counsel.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of the Dayton Power and Light Company and Related Matters, Ohio Public Utilities Commission, Case No. 94-105-EL-EFC. 1995. Concerning Clean Air Act implementation (case settled before testimony was filed), on behalf of the Office of the Ohio Consumers' Counsel.
- Kennebec Water District Proposed Increase in Rates, Maine Public Utilities Commission, Docket No. 95-091. 1995. Concerning the reasonableness of planning decisions and the relationship between a publicly owned water district and a very large industrial customer, on behalf of the Maine Public Advocate.
- Winter Harbor Water Company, Proposed Schedule Revisions to Introduce a Readiness-to-Serve Charge, Maine Public Utilities Commission, Docket No. 95-271. 1995 and 1996. Concerning standards for, and the reasonableness of, imposing a readiness to serve charge and/or exit fee on the customers of a small investor-owned water utility, on behalf of the Maine Public Advocate.
- In the Matter of the 1995 Long-Term Electric Forecast Report of the Cincinnati Gas & Electric Company, Public Utilities Commission of Ohio, Case No. 95-203-EL-FOR, and In the Matter of the Two-Year Review of the Cincinnati Gas & Electric Company's Environmental Compliance Plan Pursuant to Section 4913.05, Revised Cost, Case No. 95-747-EL-ECP. 1996. Concerning the reasonableness of the utility's long-range supply and demand-management plans, the reasonableness of its plan for complying with the Clean Air Act Amendments of 1990, and discussing methods to ensure the provision of utility service to low-income customers, on behalf of the Office of the Ohio Consumers' Counsel..

- In the Matter of Notice of the Adjustment of the Rates of Kentucky-American Water Company, Kentucky Public Service Commission, Case No. 95-554. 1996. Concerning rate design, cost of service, and sales forecast issues, on behalf of the Kentucky Office of Attorney General.
- In the Matter of the Application of Citizens Utilities Company for a Hearing to Determine the Fair Value of its Properties for Ratemaking Purposes, to Fix a Just and Reasonable Rate of Return Thereon, and to Approve Rate Schedules Designed to Provide such Rate of Return, Arizona Corporation Commission, Docket Nos. E-1032-95-417, et al. 1996. Concerning rate design, cost of service, and the price elasticity of water demand, on behalf of the Arizona Residential Utility Consumer Office.
- Cochrane v. Bangor Hydro-Electric Company, Maine Public Utilities Commission, Docket No. 96-053. 1996. Concerning regulatory requirements for an electric utility to engage in unregulated business enterprises, on behalf of the Maine Public Advocate.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate
 Schedules of Monongahela Power Company and Related Matters, Public Utilities Commission
 of Ohio, Case No. 96-106-EL-EFC. 1996. Concerning the costs and procedures associated with
 the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers'
 Counsel.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Cleveland Electric Illuminating Company and Toledo Edison Company and Related Matters, Public Utilities Commission of Ohio, Case Nos. 96-107-EL-EFC and 96-108-EL-EFC. 1996. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Ohio Power Company and Columbus Southern Power Company and Related Matters, Public Utilities Commission of Ohio, Case Nos. 96-101-EL-EFC and 96-102-EL-EFC. 1997. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
- An Investigation of the Sources of Supply and Future Demand of Kentucky-American Water Company (Phase II), Kentucky Public Service Commission, Docket No. 93-434. 1997. Concerning supply and demand planning, on behalf of the Kentucky Office of Attorney General, Public Service Litigation Branch.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Cincinnati Gas and Electric Co. and Related Matters, Public Utilities Commission of Ohio, Case No. 96-103-EL-EFC. 1997. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
- Bangor Hydro-Electric Company Petition for Temporary Rate Increase, Maine Public Utilities Commission, Docket No. 97-201. 1997. Concerning the reasonableness of granting an electric utility's request for emergency rate relief, and related issues, on behalf of the Maine Public Advocate.

- Testimony concerning H.B. 1068 Relating to Restructuring of the Natural Gas Utility Industry, Consumer Affairs Committee, Pennsylvania House of Representatives. 1997. Concerning the provisions of proposed legislation to restructure the natural gas utility industry in Pennsylvania, on behalf of the Pennsylvania AFL-CIO Gas Utility Caucus.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate
 Schedules of Cleveland Electric Illuminating Company and Toledo Edison Company and
 Related Matters, Public Utilities Commission of Ohio, Case Nos. 97-107-EL-EFC and 97-108EL-EFC. 1997. Concerning the costs and procedures associated with the implementation of the
 Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
- In the Matter of the Petition of Valley Road Sewerage Company for a Revision in Rates and Charges for Water Service, New Jersey Board of Public Utilities, Docket No. WR92080846J. 1997. Concerning the revenue requirements and rate design for a wastewater treatment utility, on behalf of the New Jersey Division of Ratepayer Advocate.
- Bangor Gas Company, L.L.C., Petition for Approval to Furnish Gas Service in the State of Maine, Maine Public Utilities Commission, Docket No. 97-795. 1998. Concerning the standards and public policy concerns involved in issuing a certificate of public convenience and necessity for a new natural gas utility, and related ratemaking issues, on behalf of the Maine Public Advocate.
- In the Matter of the Investigation on Motion of the Commission into the Adequacy of the Public
 Utility Water Service Provided by Tidewater Utilities, Inc., in Areas in Southern New Castle
 County, Delaware, Delaware Public Service Commission, Docket No. 309-97. 1998.
 Concerning the standards for the provision of efficient, sufficient, and adequate water service, and the application of those standards to a water utility, on behalf of the Delaware Division of the Public Advocate.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Cincinnati Gas and Electric Co. and Related Matters, Public Utilities Commission of Ohio, Case No. 97-103-EL-EFC. 1998. Concerning fuel-related transactions with affiliated companies and the appropriate ratemaking treatment and regulatory safeguards involving such transactions, on behalf of the Ohio Consumers' Counsel.
- Olde Port Mariner Fleet, Inc. Complaint Regarding Casco Bay Island Transit District's Tour and Charter Service, Maine Public Utilities Commission, Docket No. 98-161. 1998. Concerning the standards and requirements for allocating costs and separating operations between regulated and unregulated operations of a transportation utility, on behalf of the Maine Public Advocate and Olde Port Mariner Fleet, Inc.
- Central Maine Power Company Investigation of Stranded Costs, Transmission and Distribution Utility Revenue Requirements, and Rate Design, Maine Public Utilities Commission, Docket No. 97-580. 1998. Concerning the treatment of existing rate discounts when designing rates for a transmission and distribution electric utility, on behalf of the Maine Public Advocate.
- Pa. Public Utility Commission v. Manufacturers Water Company, Pennsylvania Public Utility Commission, Docket No. R-00984275. 1998. Concerning rate design on behalf of the Manufacturers Water Industrial Users.

- In the Matter of Petition of Pennsgrove Water Supply Company for an Increase in Rates for Water Service, New Jersey Board of Public Utilities, Docket No. WR98030147. 1998. Concerning the revenue requirements, level of affiliated charges, and rate design for a water utility, on behalf of the New Jersey Division of Ratepayer Advocate.
- In the Matter of Petition of Seaview Water Company for an Increase in Rates for Water Service, New Jersey Board of Public Utilities, Docket No. WR98040193. 1999. Concerning the revenue requirements and rate design for a water utility, on behalf of the New Jersey Division of Ratepayer Advocate.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Ohio Power Company and Columbus Southern Power Company and Related Matters, Public Utilities Commission of Ohio, Case Nos. 98-101-EL-EFC and 98-102-EL-EFC. 1999. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Dayton Power and Light Company and Related Matters, Public Utilities Commission of Ohio, Case No. 98-105-EL-EFC. 1999. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Monongahela Power Company and Related Matters, Public Utilities Commission of Ohio, Case No. 99-106-EL-EFC. 1999. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
- County of Suffolk, et al. v. Long Island Lighting Company, et al., U.S. District Court for the Eastern District of New York, Case No. 87-CV-0646. 2000. Submitted two affidavits concerning the calculation and collection of court-ordered refunds to utility customers, on behalf of counsel for the plaintiffs.
- Northern Utilities, Inc., Petition for Waivers from Chapter 820, Maine Public Utilities Commission, Docket No. 99-254. 2000. Concerning the standards and requirements for defining and separating a natural gas utility's core and non-core business functions, on behalf of the Maine Public Advocate.
- Notice of Adjustment of the Rates of Kentucky-American Water Company, Kentucky Public Service Commission, Case No. 2000-120. 2000. Concerning the appropriate methods for allocating costs and designing rates, on behalf of the Kentucky Office of Attorney General.
- In the Matter of the Petition of Gordon's Corner Water Company for an Increase in Rates and Charges for Water Service, New Jersey Board of Public Utilities, Docket No. WR00050304. 2000. Concerning the revenue requirements and rate design for a water utility, on behalf of the New Jersey Division of Ratepayer Advocate.
- Testimony concerning Arsenic in Drinking Water: An Update on the Science, Benefits, and Costs, Committee on Science, United States House of Representatives. 2001. Concerning the effects

- on low-income households and small communities from a more stringent regulation of arsenic in drinking water.
- In the Matter of the Application of The Cincinnati Gas & Electric Company for an Increase in Gas Rates in its Service Territory, Public Utilities Commission of Ohio, Case No. 01-1228-GA-AIR, et al. 2002. Concerning the need for and structure of a special rider and alternative form of regulation for an accelerated main replacement program, on behalf of the Ohio Consumers' Counsel.
- Pennsylvania State Treasurer's Hearing on Enron and Corporate Governance Issues. 2002.

 Concerning Enron's role in Pennsylvania's electricity market and related issues, on behalf of the Pennsylvania AFL-CIO.
- An Investigation into the Feasibility and Advisability of Kentucky-American Water Company's Proposed Solution to its Water Supply Deficit, Kentucky Public Service Commission, Case No. 2001-00117. 2002. Concerning water supply planning, regulatory oversight, and related issue, on behalf of the Kentucky Office of Attorney General.
- Joint Application of Pennsylvania-American Water Company and Thames Water Aqua Holdings GmbH, Pennsylvania Public Utility Commission, Docket Nos. A-212285F0096 and A-230073F0004. 2002. Concerning the risks and benefits associated with the proposed acquisition of a water utility, on behalf of the Pennsylvania Office of Consumer Advocate.
- Application for Approval of the Transfer of Control of Kentucky-American Water Company to RWE AG and Thames Water Aqua Holdings GmbH, Kentucky Public Service Commission, Case No. 2002-00018. 2002. Concerning the risks and benefits associated with the proposed acquisition of a water utility, on behalf of the Kentucky Office of Attorney General.
- Joint Petition for the Consent and Approval of the Acquisition of the Outstanding Common Stock of American Water Works Company, Inc., the Parent Company and Controlling Shareholder of West Virginia-American Water Company, West Virginia Public Service Commission, Case No. 01-1691-W-PC. 2002. Concerning the risks and benefits associated with the proposed acquisition of a water utility, on behalf of the Consumer Advocate Division of the West Virginia Public Service Commission.
- Joint Petition of New Jersey-American Water Company, Inc. and Thames Water Aqua Holdings GmbH for Approval of Change in Control of New Jersey-American Water Company, Inc., New Jersey Board of Public Utilities, Docket No. WM01120833. 2002. Concerning the risks and benefits associated with the proposed acquisition of a water utility, on behalf of the New Jersey Division of Ratepayer Advocate.
- Illinois-American Water Company, Proposed General Increase in Water Rates, Illinois Commerce Commission, Docket No. 02-0690. 2003. Concerning rate design and cost of service issues, on behalf of the Illinois Office of the Attorney General.
- Pennsylvania Public Utility Commission v. Pennsylvania-American Water Company, Pennsylvania Public Utility Commission, Docket No. R-00038304. 2003. Concerning rate design and cost of service issues, on behalf of the Pennsylvania Office of Consumer Advocate.

- West Virginia-American Water Company, West Virginia Public Service Commission, Case No. 03-0353-W-42T. 2003. Concerning affordability, rate design, and cost of service issues, on behalf of the West Virginia Consumer Advocate Division.
- Petition of Seabrook Water Corp. for an Increase in Rates and Charges for Water Service, New Jersey Board of Public Utilities, Docket No. WR3010054. 2003. Concerning revenue requirements, rate design, prudence, and regulatory policy, on behalf of the New Jersey Division of Ratepayer Advocate.
- Chesapeake Ranch Water Co. v. Board of Commissioners of Calvert County, U.S. District Court for Southern District of Maryland, Civil Action No. 8:03-cv-02527-AW. 2004. Submitted expert report concerning the expected level of rates under various options for serving new commercial development, on behalf of the plaintiff.
- Testimony concerning Lead in Drinking Water, Committee on Government Reform, United States House of Representatives. 2004. Concerning the trade-offs faced by low-income households when drinking water costs increase, including an analysis of H.R. 4268.
- West Virginia-American Water Company, West Virginia Public Service Commission, Case No. 04-0373-W-42T. 2004. Concerning affordability and rate comparisons, on behalf of the West Virginia Consumer Advocate Division.
- West Virginia-American Water Company, West Virginia Public Service Commission, Case No. 04-0358-W-PC. 2004. Concerning costs, benefits, and risks associated with a wholesale water sales contract, on behalf of the West Virginia Consumer Advocate Division.
- Kentucky-American Water Company, Kentucky Public Service Commission, Case No. 2004-00103. 2004. Concerning rate design and tariff issues, on behalf of the Kentucky Office of Attorney General.
- New Landing Utility, Inc., Illinois Commerce Commission, Docket No. 04-0610. 2005. Concerning the adequacy of service provided by, and standards of performance for, a water and wastewater utility, on behalf of the Illinois Office of Attorney General.
- People of the State of Illinois v. New Landing Utility, Inc., Circuit Court of the 15th Judicial District, Ogle County, Illinois, No. 00-CH-97. 2005. Concerning the standards of performance for a water and wastewater utility, including whether a receiver should be appointed to manage the utility's operations, on behalf of the Illinois Office of Attorney General.
- Hope Gas, Inc. d/b/a Dominion Hope, West Virginia Public Service Commission, Case No. 05-0304-G-42T. 2005. Concerning the utility's relationships with affiliated companies, including an appropriate level of revenues and expenses associated with services provided to and received from affiliates, on behalf of the West Virginia Consumer Advocate Division.
- Monongahela Power Co. and The Potomac Edison Co., West Virginia Public Service Commission, Case Nos. 05-0402-E-CN and 05-0750-E-PC. 2005. Concerning review of a plan to finance the construction of pollution control facilities and related issues, on behalf of the West Virginia Consumer Advocate Division.

- Joint Application of Duke Energy Corp., et al., for Approval of a Transfer and Acquisition of Control, Case Kentucky Public Service Commission, No. 2005-00228. 2005. Concerning the risks and benefits associated with the proposed acquisition of an energy utility, on behalf of the Kentucky Office of the Attorney General.
- Commonwealth Edison Company proposed general revision of rates, restructuring and price unbundling of bundled service rates, and revision of other terms and conditions of service, Illinois Commerce Commission, Docket No. 05-0597. 2005. Concerning rate design and cost of service, on behalf of the Illinois Office of Attorney General.
- Pennsylvania Public Utility Commission v. Aqua Pennsylvania, Inc., Pennsylvania Public Utility Commission, Docket No. R-00051030. 2006. Concerning rate design and cost of service, on behalf of the Pennsylvania Office of Consumer Advocate.
- Central Illinois Light Company d/b/a AmerenCILCO, Central Illinois Public Service Company d/b/a AmerenCIPS, and Illinois Power Company d/b/a AmerenIP, proposed general increases in rates for delivery service, Illinois Commerce Commission, Docket Nos. 06-0070, et al. 2006. Concerning rate design and cost of service, on behalf of the Illinois Office of Attorney General.
- Grens, et al., v. Illinois-American Water Co., Illinois Commerce Commission, Docket Nos. 5-0681, et al. 2006. Concerning utility billing, metering, meter reading, and customer service practices, on behalf of the Illinois Office of Attorney General and the Village of Homer Glen, Illinois.
- Commonwealth Edison Company Petition for Approval of Tariffs Implementing ComEd's Proposed Residential Rate Stabilization Program, Illinois Commerce Commission, Docket No. 06-0411. 2006. Concerning a utility's proposed purchased power phase-in proposal, in behalf of the Illinois Office of Attorney General.
- Illinois-American Water Company, Application for Approval of its Annual Reconciliation of Purchased Water and Purchased Sewage Treatment Surcharges Pursuant to 83 Ill. Adm. Code 655, Illinois Commerce Commission, Docket No. 06-0196. 2006. Concerning the reconciliation of purchased water and sewer charges, on behalf of the Illinois Office of Attorney General and the Village of Homer Glen, Illinois.

Commonwealth of Kentucky Before the Public Service Commission

In the Matter of: The Joint Petition of Kentucky-American Water Company, Thames Water Aqua Holdings GmbH, RWE Aktiengesellschaft, Thames Water Aqua US Holdings, Inc., and American Water Works Company, Inc. for Approval of a Change in Control of Kentucky-American Water Company

Docket No. 2006-00197

AFFIDAVIT OF SCOTT J. RUBIN

Commonwealth of Pennsylvania)
County of Snyder)

Scott J. Rubin, being first duly sworn, states the following: The prepared Pre-filed Direct Testimony and the attached schedules constitute the direct testimony of Affiant in the abovestyled case. Affiant states that he would give the answers set forth in the Pre-filed Direct Testimony if asked the questions propounded therein. Affiant further states that, to the best of his belief and knowledge, his statements made are true and correct. Further, Affiant saith not.

SUBSCRIBED AND SWORN to before me this 14 day of August, 2006.

My Commission Expires:

Leslie A. McGlynn, Notary Public Selinsgrove Boro, Snyder County My Commission Expires May 9, 2009